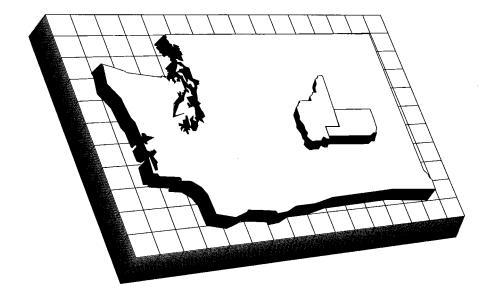
ADAMS AND GRANT COUNTY PROFILE



April 1999Labor Market and
Economic Analysis Branch
Gary Bodeutsch, *Director*



ADAMS AND GRANT COUNTY PROFILE APRIL 1999

Labor Market and Economic Analysis Branch Employment Security Department

This report has been prepared in accordance with *RCW 50.38.050*.

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- On-line database (WILMA) at www.wilma.org
- ◆ Labor Market Information Center (LMIC) at 1-800-215-1617

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INTRODUCTION

This report profiles the labor and economic characteristics of Adams and Grant counties. It was prepared by the Labor Market and Economic Analysis (LMEA) Branch of the Washington State Employment Security Department and is one in a series that profiles labor market and economic conditions in each of Washington's 39 counties.

The profile is designed to assist state and local planners in developing local economic strategies. It is also an effective tool for answering labor market and economic questions frequently asked about the county. Readers with specific information needs should refer to the *Table of Contents* or to the *data appendix* to more quickly access those sections of particular interest to them.

Like the earlier Adams and Grant County Profile of February 1995, the purpose of this report is to provide a comprehensive labor market and economic analysis of Adams and Grant counties. Characteristics profiled include the following:

- physical geography, economic history, and demographics
- labor force composition and trends
- industries, employment, and earnings
- skills and occupations
- economic development and job training

Much of the information in this report is regularly updated on the LMEA Internet homepage. The homepage contains current and historical labor market information which can be accessed by area or by type of information. The site address is:

http://www.wa.gov/esd/lmea

Any inquiries or comments about information in the profile should be directed to the Labor Market and Economic Analysis Branch.

GEOGRAPHY

Adams and Grant counties are part of the fertile Columbia Basin in eastern Washington. The two-county region is bounded to the west by Kittitas County, to the east by Whitman County, to the south by Benton and Franklin counties and to the north by parts of Douglas, Lincoln, and Okanogan counties.

Grant and Adams counties constitute geographic areas of 2,660 square miles and 1,922 square miles, respectively. As such, they rank 4th and 14th, respectively, in size among Washington counties. Taken together, the two counties comprise almost 7 percent of the state's total land mass.

As their connection with the Columbia Basin would suggest, the topography of Adams and Grant counties is characterized by rich and fertile valleys, gentle rolling hills, and grassy plains. The region also enjoys a generally warm, semi-arid climate and long periods of clear and sunny weather. As a result, the region has evolved into one of the state's premier agricultural centers.

Although Adams and Grant counties are typically arid, their agricultural productivity is promoted by an extensive man-made irrigation network. By controlling the Columbia River's flow at the Grand Coulee Dam (the northernmost point in Grant County), engineers fostered 30-mile long Banks Lake, as well as a series of lesser lakes (i.e., Park, Blue, Deep, Lenore, and Soap). From this chain, water flows southward into Grant County via rivers, creeks, and man-made canals. The water is captured along the way by dams and reservoirs, with much of the overflow emptying into Moses Lake in the south county. Having less abundant water resources, Adams County benefits tremendously from an extensive network of irrigation canals emanating from Grant County.

ECONOMIC HISTORY

Adams County

Adams County was named in honor of John Adams, second President of the United States. The county was formed by an act of the Washington Territorial Legislature in November of 1883 after being subdivided (along with Franklin County) from what was then Whitman County. The bill was signed by Territorial Governor William Newell in December of that same year.

Adams County had few natural resources—furs, minerals, timber, or water—to attract either Native American or white settlements. Early commerce is believed to have been limited to foraging. It is known that Indians collected duck eggs around Moses Lake before moving on to their favorite fishing grounds along the Snake and Palouse rivers. Early white settlers passed through the county only as a means of traveling between outposts in Spokane and Okanogan.

In 1855, a military road was built between Fort Walla Walla on the Columbia River and Fort Benton on the Missouri River. Eventually, a branch road was built to Fort Colville. The branch fell in southeast Adams County, along Cow Creek. There, in 1869, George Lucas established a way station and became the county's first permanent white settler.

Over the next decade, a few stockmen settled near Cow and Crab creeks, but that was the extent of settlement. Two significant events, however, would change that. In 1880, James G. Bennett harvested a small wheat crop, and in 1881 the Northern Pacific Railroad laid tracks through the county. With a fledgling farm industry established, migration into the county began.

Most of the region's new settlers were Russian-German immigrants who came to the United States in the 1870s and made their way to Adams County by way of Nebraska. The settlers concentrated their efforts on grain production. Consequently, by 1900, despite the continued grazing of thousands of cattle and sheep, wheat production became the primary industry in Adams County.

Through the turn of the century, wheat farms in Adams County became increasingly mechanized. Steam-powered stationary grain separators were in use. Ground-powered combines, which cut the grain and threshed it in one operation pulled by teams of 26-33 horses or mules, were introduced. By the end of the 1920s most of the ground-powered horse drawn combines had been replaced by gasoline-powered combines pulled by Holt caterpillar tractors. In the 1940s self-propelled combines became the dominant method of harvesting.

Many of the economic gains were lost during the prolonged drought of the 1930s. The resulting dust bowl ruined many small family-owned farms and led to their consolidation with those who survived. These large farms eventually produced a succession of bumper harvests starting in the 1940s, and they prospered even more with the introduction of federal price supports.

More recently, an agriculturally-oriented pattern of economic development has emerged in Adams County. The growth in crop production has further given rise to complementary industries such as food processing, wholesale trade, and a number of agricultural services.

Grant County

One of the youngest Washington counties, Grant County was named after Ulysses S. Grant, Civil War general and eighteenth President of the United States. The county was established in February of 1909 by an act of the state Legislature and signed by Lieutenant Governor M. E. Hay, acting on behalf of Governor Samuel G. Cosgrove, who was ill.

During the territorial days of the 1850s, stock raising was the principal industry in Grant County. Thousands of cattle and horses roamed the county's grassy hills during the summer. In winter, they could be found in the low-lands of the Columbia River and surrounding basin. By the 1880s, however, the cattle and sheep gave way to agricultural production as the county's primary industry.

During the 1880s, Grant County was opened to home-steading by President Grover Cleveland. Numerous towns were platted during this period as people streamed into the county. Fertile soil and abundant sources of surface and ground water promoted the development of fruit orchards. Large orchard tracts sprang up around towns like Moses Lake, Stratford, Grant Orchards, Coulee City, Quincy, and Trinidad. During this period, tree fruit production—mostly apples—peaked at around 1,000 to 1,200 train carloads per harvest.

By laying tracks across Grant County between the late 1800s and the early 1900s, several major railroads provided transportation vital to rapid growth and expansion in the county. The Great Northern, the Northern Pacific, and the Chicago, Milwaukee and St. Paul railroads provided the means of transporting agricultural products, machinery, supplies, transcontinental passengers and mail into the county.

Most of the gains made during the late 1800s and early 1900s, however, were soon erased. Coinciding with the post-World War I depression, severe and prolonged droughts hit the region. In Grant County, crops failed, the bottom fell out of the agricultural market, and many farmers were forced to abandon their land.

It was not until 1933, after much prodding and debate, that the United States Congress intervened. It did so by authorizing construction of the Grand Coulee Dam. The act, however, was not without condition. County landowners were assured no irrigation water until they organized irrigation districts and agreed to pledge a certain dollar sum per acre based on soil quality.

In February of 1939, an election was held to create the first of three irrigation districts which formed the Columbia Basin Project. The Quincy Columbia Basin Irrigation District included more than half the irrigable land in Grant County. The move was successful, as were those to form the East and South Districts a few months later. Consequently, the county was able to irrigate its land with much needed water from the Grand Coulee Dam.

During World War II, Moses Lake became the home of Larson Air Force Base, a training facility for American bomber pilots and their crews. With the conclusion of the war, the base became the primary defense outpost for both the Hanford site and Grand Coulee Dam. It also served as both a testing and outfitting center for The Boeing Company's B-52s and KC-135s until 1962. The base was decommissioned in 1965 with the property becoming the jurisdiction of the Port of Moses Lake. Known today as the Grant County International Airport, the facility serves as a flight training center for Japan Air Line 747 crews.

In terms of agriculture, the Columbia Basin Project's overall plan calls for 1,095,000 acres of irrigated land (60 percent of which lies in Grant County), of which 543,930 acres have been brought under irrigation to date. The extensive irrigation project has fueled steady growth in Grant County's agriculture industry. The county's agricultural success has subsequently fueled growth in complementary industries such as food processing and wholesale trade and trucking. Furthermore, inexpensive electricity from PUD owned Priest Rapids and Wanapum dams has attracted and retained a solid manufacturing presence in the county.

POPULATION

The Office of Financial Management has estimated the 1998 population of Adams and Grant counties at 15,900 and 69,400, respectively. Adams and Grant rank as the 31st and 16th largest counties in Washington State. The

last actual head count was the 1990 Census when the population was 13,603 in Adams County and 54,798 in Grant County.

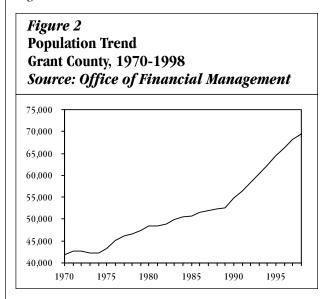
Trends

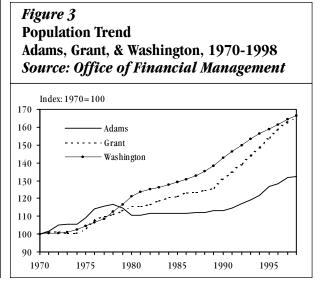
Population changes are viewed as important economic indicators because people tend to follow jobs. Since 1990, population growth in both counties has been relatively strong (see Figures 1 and 2). Prior to that, national economic recessions and stagnation played a major role. The most significant events of the earlier period were the "double-dip" recessions of the early 1980s. Not only did this cause population declines in the two counties, eastern Washington in general did not recover as quickly from the recessions as did the state and the nation. Economic stagnation was the order of the day for most of eastern Washington during the 1980s when the rest of the nation as a whole was booming. The effect this had on the two counties was apparent: Adams had no population growth during the decade and Grant had only minimal growth. (It wasn't until 1992 that the Adams County population regained the level it enjoyed in 1978.)

From 1970 to 1998, Adams County's population increased a moderate 32 percent, from 12,014 to 15,900, about half of the statewide average of 67 percent. Over

Figure 1 **Population Trend** Adams County, 1970-1998 Source: Office of Financial Management 17,000 16,000 15,000 14,000 13,000 12,000 11,000 1990 1995 1970 1975 1980 1985

the same time, Grant County accumulated a total increase of 66 percent (from 41,881 to 69,400), only slightly less than the state. *Figure 3* shows the population indexed to 1970=100 and compares the two counties with Washington State.





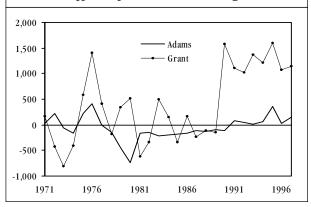
Components of Population Change

Two reasons cause population change in an area. One is the natural increase: births versus deaths. Significant changes to the natural rate are normally associated only with major socio-economic occurrences such as the Great Depression (low births) and the aftermath of World War II (the baby boom), both of which resulted in significant changes in the birth rate. The other cause of population change is migration, which is usually associated with economic change and job opportunities.

During the stagnant 1980s (1980 to 1990), Adams County experienced a natural population increase of 1,852—the net increase resulting from 2,845 births and 993 deaths. However, because of significant out-migration, (net migration was -1,516), the net change in the population was only 336. To date, the 1990s have shown a very different pattern. While the natural increase from 1990-98 was 1,520, the migratory element showed a net gain of 777, resulting in an overall population increase of 2,297 in only eight years of this decade.

In Grant County, the pattern was similar but not as severe. The Recessions in the early 1980s did cause the population to decline but only slightly and only for one year. Growth occurred through the rest of the 1980s but was modest. From 1980 to 1990, Grant County experienced a natural population increase of 5,620—the net increase resulting from 9,379 births and 3,759 deaths.

Figure 4
Net Migration
Adams & Grant Counties, 1971-1997
Source: Office of Financial Management



Net migration added only 656. Beginning in 1990, however, growth sped up and has been very strong throughout the decade to date. From 1990 to 1998, the county has increased by 14,602 residents, the result of a natural change of 5,498 and net migration of 9,104. Grant is ranked as Washington's third fastest-growing county during this period.

Figure 4 shows net migration from 1971 through 1997 in Adams and Grant counties. The pickup in the 1990s attests to a currently stronger economy in both counties.

Populated Areas

In 1998, more than half of Adams County's 15,900 residents lived in incorporated areas while 49 percent lived in unincorporated areas (*see Figure 5*). The unincorporated sectors grew 21 percent from 1990-98 while the incorporated sectors only grew 13 percent. There was growth for all municipalities of Adams County between 1990 and 1998.

Grant County's 69,400 population was evenly distributed; fifty percent of the residents lived in unincorporated areas and 50 percent lived in incorporated regions. Both unincorporated and incorporated sectors have been growing in Grant County. Over the years 1990-98, unincorporated areas grew 32 percent while incorporated areas increased by 22 percent. Mattawa, the fastest growing municipality in Grant County, expanded its population by 93 percent since 1990.

Figure 5
Population of Cities, Towns, and Counties
April 1, 1990 to April 1, 1998
Source: Office of Financial Management

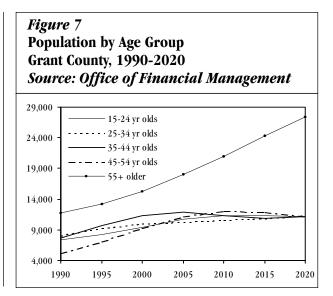
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	1990	1991	1992	1993	1994	1995	1996	1997	1998	% Chg 1990-98
Adams County	13,603	13,800	14,100	14,300	14,600	15,200	15,400	15,800	15,900	17%
Unincorporated	6,466	6,606	6,888	7,044	7,240	7,364	7,522	7,757	7,835	21%
Incorporated	7,137	7,194	7,212	7,256	7,360	7,836	7,878	8,043	8,065	13%
Hatton	71	91	90	90	90	111	123	120	120	69%
Lind	472	465	480	470	470	470	475	475	475	1%
Othello	4,638	4,640	4,640	4,690	4,780	5,240	5,255	5,395	5,415	17%
Ritzville	1,725	1,725	1,730	1,740	1,750	1,745	1,755	1,775	1,775	3%
Washtucna	231	273	272	266	270	270	270	278	280	21%
Grant County	54,798	56,440	58,240	60,300	62,200	64,500	66,400	68,300	69,400	27%
Unincorporated	26,406	27,761	28,946	30,456	31,322	32,405	33,037	34,455	34,740	32%
Incorporated	28,392	28,679	29,294	29,844	30,878	32,095	33,363	33,845	34,660	22%
Coulee City	568	561	598	62	612	630	630	625	630	11%
Electric City	910	915	915	915	945	960	970	975	975	7%
Ephrata	5,349	5,380	5,430	5,550	5,585	5,715	5,911	5,945	6,065	13%
George	324	314	327	336	365	438	492	460	465	44%
Grand Coulee	984	985	1,010	1,018	1,045	1,075	1,090	1,105	1,215	23%
Hartline	176	175	175	180	185	185	185	185	185	5%
Krupp	53	55	67	60	65	60	60	53	51	-4%
Mattawa	941	950	1,180	1,310	1,535	1,685	1,760	1,820	1,820	93%
Moses Lake	11,235	11,420	11,530	11,700	12,190	12,490	13,130	13,330	13,710	22%
Quincy	3,734	3,756	3,776	3,810	3,860	3,925	3,990	4,030	4,090	10%
Royal City	1,104	1,105	1,130	1,145	1,200	1,466	1,500	1,540	1,580	43%
Soap Lake	1,203	1,215	1,270	1,260	1,300	1,320	1,340	1,370	1,370	14%
Warden	1,639	1,655	1,685	1,710	1,765	1,910	2,090	2,190	2,280	39%
Wilson Creek	169	190	199	226	224	234	214	214	221	31%

Population by Age Groups

Figures 6 and 7 on the next page show the population subsumed into different age groups and projected to 2020. The 55-and-older group is the largest and is also the fastest growing. If the trend materializes as projected, this dynamic will bring change of a major magnitude. Aging baby boomers—that very numerous

generation born between 1946 and 1964— are moving quietly toward retirement age. This will have large-scale effects upon Social Security and provision of health care services, just to name two areas where significant changes will occur. These trends are occurring at about the same rate at both the state and national levels.

Figure 6 **Population by Age Group** Adams County, 1990-2020 Source: Office of Financial Management 4,500 15-24 yr olds 4,000 25-34 yr olds 35-44 yr olds 3,500 45-54 yr olds 3,000 55+ older 2,500 2.000 1,000 1995 2000 2005 2010 2015 2020



Demographics

Figure 8 shows the racial composition of the two counties and Washington State for 1990 (Census) and 1997 (estimate). In terms of race, whites make up the vast majority of the county residents: some 98 percent in Adams and 96 percent in Grant. The statewide share of whites was 89 percent. Although the non-white races grew at a much faster rate than whites from 1990-97, the growth was not enough to appreciably alter the share sizes.

Those of Hispanic origin, who can belong to any race, have very significant numbers in the counties—far more than statewide. About 42 percent of Adams

County is of Hispanic origin as is more than one-fourth of Grant County. Further, Hispanics have been among the faster growing groups since 1970 (almost doubling in Grant County).

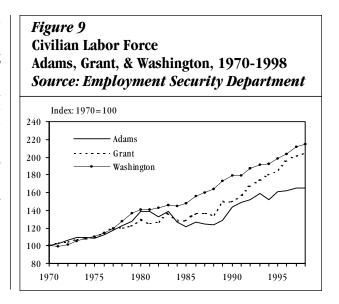
The sizes of the various groups are fairly similar between the two counties but remarkably different from the state. These differences reflect the very different economies of eastern Washington, such as in Adams and Grant counties, and western Washington, which is strongly influenced by the large industrialized population centers of Central Puget Sound.

Figure 8
Population Estimates by Race and Hispanic Origin
Adams and Grant Counties and Washington State, 1990 and 1997
Source: Office of Financial Management

	Census Estimates 1990 1997			90-97 % Change	
Adams County					S
Total	13,603	100.0%	15,800	100.0%	16%
White	13,359	98.2%	15,416	97.6%	15%
Non-white	244	1.8%	384	2.4%	57%
Black	33	0.2%	49	0.3%	48%
Indian/Aleut	64	0.5%	83	0.5%	30%
Asian/Pacific Islander	147	1.1%	252	1.6%	71%
Hispanic Origin	4,467	32.8%	6,646	42.1%	49%
Grant County			·		
Total	54,758	100.0%	68,300	100.0%	25%
White	52,735	96.3%	65,302	95.6%	24%
Non-white	2,023	3.7%	2,998	4.4%	48%
Black	634	1.2%	882	1.3%	39%
Indian/Aleut	676	1.2%	1,045	1.5%	55%
Asian/Pacific Islander	713	1.3%	1,071	1.6%	50%
Hispanic Origin Washington	9,427	17.2%	17,969	26.3%	91%
Total	4,866,692	100.0%	5,606,800	100.0%	15%
White	4,411,407	90.6%	4,970,825	88.7%	13%
Non-white	455,285	9.4%	635,975	11.3%	40%
Black	152,572	3.1%	193,426	3.4%	27%
Indian/Aleut	87,259	1.8%	107,142	1.9%	23%
Asian/Pacific Islander	215,454	4.4%	335,407	6.0%	56%
Hispanic Origin	214,570	4.4%	339,978	6.1%	58%

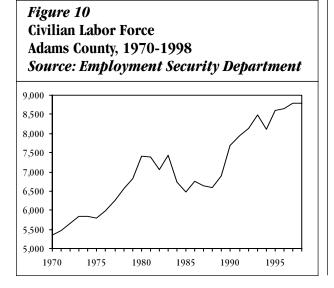
LABOR FORCE

The resident civilian labor force is defined as all persons 16 years of age and older within a specified geographic area who are either working or actively seeking work. This excludes those serving in the armed forces. Like the general population, the labor force can be seen as a key economic indicator. Since gross domestic product and gross state product are not gathered at the county level, labor force changes, as well as other measures, serve as substitutes. In 1998, the labor force in Adams County was estimated at 8,800; in Grant County 36,980. *Figure 9* shows the labor force of both counties indexed to 1970=100 and compares them to the state.



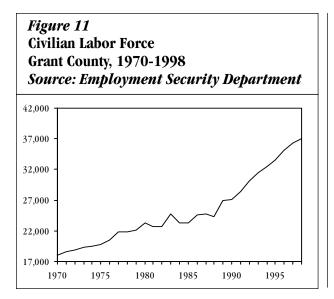
Trend

Adams County. Figure 10 shows changes in the Adams County labor force from 1970 to 1998. It grew by 65 percent during this period (statewide growth was almost double that). Throughout most of the 1970s, the county's labor force grew at annual rates between 2.2 and 4.8 percent. After this decade of strong growth, the



"double-dip" recessions of the early 1980s brought growth to a halt and initiated a decline. In the aftermath of the recessions, when the nation and the state went into a strong expansion, the county's labor force faltered and edged downward. Recovery began in 1988 and the labor force size surpassed its previous high in 1990. The most recent recession (1990-91) had no effect on the labor force expansion; however, the growth of the work force has been moderate since 1994.

Grant County. Over the same 1970-1998 time period, Grant County's labor force grew 105 percent, expanding from 18,040 to 36,980 (see Figure 11). The county had moderate growth, albeit with a few short declines, through the 1970s and most of the 1980s. Since the late 1980s, labor force growth has been robust, averaging over a 4.5 percent increase annually. About two-thirds of the total 1970-98 increase came in the last eight years as manufacturing and trade employment blossomed. The increase in jobs attracted workers: the increase in population mentioned earlier (steady positive in-migration) fed into the labor force and swelled its numbers.



Demographics

The racial/ethnic split of the counties is significantly different than statewide. As a whole, the state is about 85 percent white and 5 percent Hispanic origin with the other races making up the difference (Blacks, 2.8 percent; Native Americans, 1.5 percent; and Asian/Pacific Islanders, 5.5 percent). In regard to the sexes, the labor forces of the two counties have a higher share of male than female participants, and the difference is even greater than it is statewide where males account for 55 percent and females 45 percent of the total.

Adams County. According to 1996 estimates by the Employment Security Department, 62 percent of Adams County's labor force is non-Hispanic white (see Figure 12). The three other races accounted for just over 1 percent of the total and those of Hispanic origin made up 36 percent. (In this formulation, Hispanic origin is counted separately: the racial groups do not contain any persons of Hispanic origin.) Looking at the labor force by sex, about 60 percent of its workers are male and 40 percent female.

Grant County. Grant County's labor force followed similar lines. Non-Hispanic whites accounted for 71 percent of the labor force while the other races combined made up about 4 percent. Those of Hispanic origin made up 25 percent of the total. Like Adams County, Grant County has about a 60-40 male-female split in its labor force.

Figure 12
Resident Labor Force by Sex & Minority
Adams & Grant Counties, 1996 Annual Avg.
Source: Employment Security Department

	Adams	Grant
Total	8,460	34,400
White	5,270	24,580
Black	30	300
Native American	30	540
Asian & Pacific Islander	60	360
Hispanic	3,060	8,630
Male	5,110	20,500
White	3,180	14,060
Black	30	180
Native American	30	360
Asian & Pacific Islander	40	200
Hispanic	1,820	5,710
Female	3,350	13,900
White	2,090	10,520
Black	***	120
Native American	***	180
Asian & Pacific Islander	20	160
Hispanic	1,240	2,920
Female Percent of Total	39.6%	40.4%

All races exclude those of Hispanic origin, as Hispanic is indicated as a separate group.

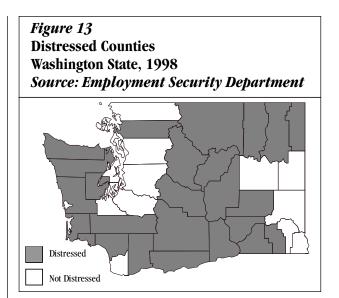
Race estimates are based on 1990 Census and 1996 population data from the Office of Financial Management.
Detail may not add to indicated totals because of rounding
*** Indicates less than 10.

UNEMPLOYMENT

The civilian labor force consists of those who are working and those who are not working but are looking for work. The unemployment rate is the percentage of the total labor force who are not working but who are actively looking for work. The unemployed do not include retirees, persons in institutions, or those who have come to be known as "discouraged workers," i.e., persons who would like to work but who are not actively searching for a job. None of these groups of people are included in the unemployment figures because they are not looking for work.

At the national level, the unemployment rate is determined by a regularly recurring survey of households. At the local level, the state's portion of this household survey is integrated and merged with other information (e.g., unemployment insurance claims and surveys of business establishments) to produce unemployment rates at the state and sub-state (county) level.

Figure 13 shows the counties in Washington that are considered to be *distressed*, that is, they have unemployment rates 20 percent higher than the statewide av-

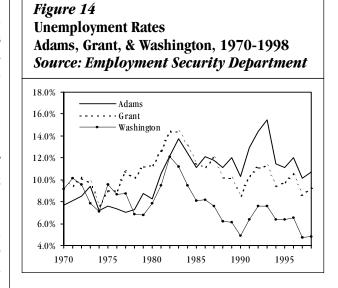


erage for three consecutive years. Both Adams and Grant counties are included among the distressed counties, making them eligible for state programs designed to improve economic vitality.

Trend

Adams County. In 1998, Adams County had 10.7 percent of its labor force idle (the sixth highest unemployment rate of Washington's 39 counties). This equates to 940 people looking for work. The rate was up slightly from the year before but down from 1996's 12.0 percent.

Until the "double-dip" recessions of the early 1980s, unemployment in Adams County tracked pretty closely with the statewide average. The recovery following those recessions, though, excluded Adams County in terms of unemployment. In 1982 (see Figure 14), at the height of the recession, both the county and the state had unemployment rates of just slightly over 12 percent. Unemployment throughout the state as a whole then started falling, going from 12.1 percent in 1982 all the way to 4.7 percent in 1990. In Adams County, the rate also fell to a low point in 1990, but it was more than 10 percent—double the state's. The 1990-91 recession sent unemployment back up; but what was a moderate increase statewide was a huge increase in Adams County



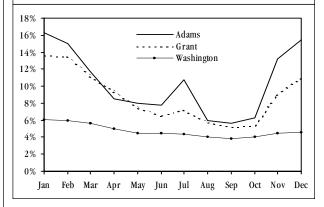
where it reached 15.4 percent in 1993. Since then the rate has come down and in 1997 reached its lowest point since 1980.

On an annual basis, unemployment in Adams County tends to track with the state, albeit at a higher level. During the course of a year, though, the pattern is markedly different. With a large portion of its work force engaged in highly seasonal farm jobs (or farm-related jobs like food processing), unemployment oscillates significantly on a monthly basis. *Figure 15* shows the monthly unemployment rate for the county in 1997. The rate in January was 16.3 percent, treble the rate in September during harvest time. The monthly pattern recurs every year.

Grant County. In Grant County, the 1998 jobless rate was less than Adams County's, but nevertheless relatively high at 9.2 percent (ranked twelfth in the state), or 3,390 job seekers. The rate was higher than 1997's 8.6 percent. Statewide in 1998, 4.8 percent of the labor force was unemployed.

Grant County's unemployment rate started climbing earlier in the 1970s than it did in either Adams County or the state. In 1974, it was 7.6 percent—its historical low—but the next year it started climbing and continued going up until 1983 when it peaked at 14.4 percent. As it came down during the 1980s, it began to consistently come in lower than Adams County although it remained higher than the statewide rate. The 1990-91 recession drove the rate up but not to the heights in Adams County and it came down relatively quickly. Nevertheless, unemployment in Grant County has been

Figure 15
Monthly Unemployment
Adams, Grant, & Washington, 1970-1998
Source: Employment Security Department



greater than statewide unemployment every year since 1976, usually about 4 to 5 percentage points higher.

Grant County has about one-fourth of its work force employed in agriculture where the activity is very seasonal. Unemployment throughout the year fluctuates in accordance with the dictates of the crop. During the winter months when there is little activity, unemployment is high (13.6 percent in January of 1997). At harvest time during warm weather, unemployment tumbles (5.2 percent in September). Like in Adams County, this is a reoccurring pattern that can be expected annually.

Unemployment Insurance Claims

Figure 16 on the next page shows unemployment insurance claims, categorized by broad occupational (rather than industrial) groupings, for Adams and Grant counties and Washington State for the period July 1, 1996 - June 30, 1997. At a glance, it is readily apparent that there are remarkable differences between the two counties and the state, and, very strong similarities between the two counties.

Within Adams and Grant counties, those occupations which have traditionally been thought of as blue-collar generate the vast majority of unemployment insurance claims. This, of course, reflects the high concentration of employment in those occupations. However, it also highlights the difference between the state and the coun-

ties, the similarities between the two counties, and the volatility of employment in certain occupations.

The table groups professional, clerical, sales, and service occupations as white-collar jobs and the remainder as blue-collar jobs. Adams County had four-fifths of all its UI claims come from blue-collar professions; Grant County had three-fourths; and the state had only one-half.

More specifically, in both counties the largest percentage of UI claims came from agricultural jobs, the second largest from processing jobs. In the state, the largest share was from structural work (primarily construction) and the second largest was from professional, technical, and managerial jobs.

Figure 16
Unemployment Insurance Claimants
Adams, Grant, and Washington State, July 1, 1996 - June 30, 1997
Source: Employment Security Department

	Adams		Grant		Washington	
	Claimants	Percentage	Claimants	Percentage	Claimants	Percentage
Structural work	111	6%	738	12%	58,241	18%
Packaging and material handling	186	10%	552	9%	28,263	9%
Agriculture, forestry and fishing	530	29%	1,421	22%	25,950	8%
Service	114	6%	549	9%	35,927	11%
Clerical	142	8%	597	9%	38,118	12%
Machine trades	32	2%	173	3%	16,753	5%
Professional/technical/managerial	46	3%	322	5%	54,030	17%
Motor freight and transportation	157	9%	524	8%	16,798	5%
Miscellaneous, NEC	45	2%	122	2%	5,503	2%
Processing	420	23%	1,205	19%	16,134	5%
Sales	30	2%	151	2%	17,598	5%
Benchwork	4	0%	47	1%	9,434	3%
Total	1,817	100%	6,401	100%	322,749	100%
White-Collar*	332	19%	1,619	26%	145,673	46%
Blue-Collar*	1,440	81%	4,660	74%	171,573	54%
*Miscellaneous/NEC occupations ex	cluded					

Demographics

Adams County. According to the 1996 estimates by Employment Security Department analysts, Adams County had an overall unemployment rate of 12.2 percent (*see Figure 17*). The rate for non-Hispanic whites, however, was only about half that (6.5 percent). High unemployment among those of Hispanic origin (22.2 percent) accounted for the large difference between the overall rate and that for whites. Blacks and Asians and Pacific Islanders all had less than 10 unemployed. Native Americans, with a total of ten unemployed, had an unemployment rate of 33.3 percent. Unemployment was somewhat higher among women than men, 13.1 percent versus 11.5 percent.

Hispanics suffer from disproportionately high unemployment because most are associated with work in the agricultural industry. Employment is not steady, is sharply seasonal, and rarely has permanence. Further, the unemployment problem is exacerbated because many of the workers do not have the skills or training to transfer to different, less transitory, work. The 1990

Figure 17
Unemployment by Race and Sex
Adams, Grant, & Washington, 1996
Source: Employment Security Department

	Adams	Grant	State
Total	12.2%	10.6%	6.5%
White	6.5%	7.5%	5.7%
Black	***	23.3%	12.7%
Native American	33.3%	29.6%	16.1%
Asian & Pacific Islander	***	8.3%	6.7%
Hispanic	22.2%	18.0%	13.6%
Male	11.5%	9.9%	6.2%
Female	13.1%	11.7%	6.9%

All races exclude those of Hispanic origin, as Hispanic is indicated as a separate group.

Race estimates are based on 1990 Census and 1996 population data from the Office of Financial Management.
***Less than ten unemployed

Census showed that less than one-fourth of Hispanics in Adams County over twenty-five years of age had a high school education. Matching these workers to other jobs is a challenge.

Grant County. Grant County, with a larger labor force and larger numbers of people in the various racial categories, had unemployment figures in 1996 as follows: white, 7.5 percent; black, 23.3 percent; Native American, 29.6 percent; Asian/Pacific Islander, 8.3 percent;

and those of Hispanic origin, 18.0 percent. Men had a rate of 9.9 percent and women, 11.7 percent.

Like in Adams County, much of the higher unemployment rates for some minority groups can be attributed to their association with farm work. Large numbers of the work force are engaged in agriculture, which is prone to unemployment. Many of the workers, because of low educational levels, do not have readily transferable skills even if other employment were available.

INDUSTRIES, EMPLOYMENT, AND WAGES

Data in this section are derived through two different Bureau of Labor Statistics programs which are conducted in Washington by the Employment Security Department. The first, called CES (Current Employment Statistics), generates monthly nonagricultural employment figures; the second, the Quarterly Employment and Wages program (ES-202), includes data on both agricultural and nonagricultural employment covered under the state unemployment insurance program. All wage data and agricultural employment data in this section stem from the Employment and Wages program; other employment information comes from the CES program.

Employment Trend

Figure 18 shows total nonagricultural employment for both counties and the state since 1970. Employment is indexed to 1970=100 so the chart shows cumulative growth rates. Growth in both counties surpassed the state in the early 1970s until it was stopped by the major national recessions of the early 1980s. The recession hit eastern Washington more severely than it did the industrialized Puget Sound region (which strongly influences the overall state averages) and recovery in the east took much longer than it did for the rest of the state (or the nation). Since then, growth in Adams County has been hesitant; in Grant County it has been strong.

Adams County. In Adams County, growth was very strong from 1971 through 1979, largely propelled by dramatic increases in trade employment. In fact, employment grew by 47 percent during this period, going from 3,110 to 4,560 (*see Figure 19*). Total growth for the entire 1970-97 period was only 62 percent, though. Employment fell sharply after 1979, was stagnant for several years, and did not surpass its previous high point (i.e., begin expansion) until 1990. The county created a total of 1,980 new jobs over the 1970-97 period, and closed out 1997 with a 5,150 employment level. The number is down from the 5,510 high of 1995 primarily because of job losses in the food processing industry.

Grant County. Nonagricultural employment in Grant County differed over the same period. While the county's employment base is much larger than in Adams County, its growth rate was less during the 1970s. From 1970 to 1978 (its peak during the 1970s), growth measured 32 percent, quite a bit less than in Adams County. The "double-dip" national recessions of the early 1980s were

Figure 18
Nonagricultural Wage & Salary Employment
Adams, Grant, & Washington, 1970-1997
Source: Employment Security Department

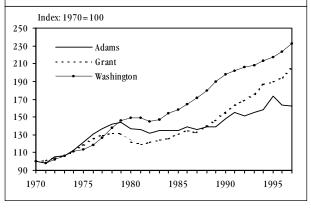


Figure 19 Nonagricultural Wage & Salary Employment Adams County, 1970-1997 Source: Employment Security Department

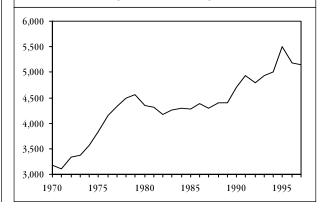
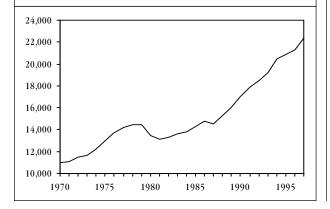


Figure 20 Nonagricultural Wage & Salary Employment Grant County, 1970-1997 Source: Employment Security Department



instrumental in halting growth and causing an employment decline in both counties. The decline was about the same in both counties, about 8 percent in Adams and 9 percent in Grant. However, Grant County's recovery and expansion began much sooner than Adams County's. By 1986 employment had surpassed its previous high, and since 1987 growth has been continuous. All in all since 1970, the county realized 104 percent growth, creating a total of 11,400 new nonagricultural jobs. Its employment was at an all-time high of 22,350 in 1997.

Location Quotients

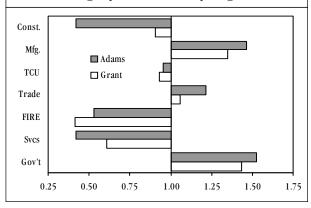
One way to determine how an area's economy is shaped is to compare it to another area. The following section shows how Adams and Grant county employment patterns both differ from and coincide with Washington State's. When comparing an industry's share of all employment at the county level to the same industry's share at the statewide level, it becomes apparent that some county employment is distributed differently than statewide employment. The *location quotient* compares the share of total employment in a particular industry division in the county with the share it represents in Washington State.

The quotient is determined by dividing the statewide industry employment share into the county industry share. A quotient of 1.0 denotes an industry in which the county is typical to the state as a whole; a value above 1.0 shows an industry with a higher concentration of employment; and a value below 1.0 marks a county industry with a lesser concentration of employment than in the same industry statewide.

A quotient above 1.0 suggests that the good or service produced by an industry is exported from the area; a quotient below 1.0 is a sign that, hypothetically, goods or services must be imported into an area to provide the same consumption patterns found at the state level. The greater the value above or below 1.0, the stronger the suggestion of exporting or importing becomes.

Figure 21 shows the 1997 location quotients of the nonfarm major industry sectors in both counties. This portrait shows strong similarities between the two counties and differences with the state. Agriculture is not

Figure 21
Location Quotients
Adams & Grant Counties, 1997
Source: Employment Security Department



shown in the chart because its quotient, discussed below, was derived from the covered employment data rather than the nonfarm series. If the quotient were added to the chart, the perspective would be severely skewed.

The economies of both counties are very similar in that employment concentrations by industry sector fall either above or below the state's in tandem. Manufacturing (essentially food processing) is substantially above 1.0 in both counties, indicating exportation of goods. Trade is also above the statewide benchmark, much of that relating to wholesale trade of food products. The government sector is also above the statewide level. Government services, which include education, must be provided regardless of the population base. Rural areas tend

to have higher levels of government employment because they do not get the economies of scale found in more densely populated areas. A school, for example, must be provided whether there are 50 or 5,000 students.

All the other sectors are below the 1.0 mark, most substantially so. The goods or services provided by these industries are probably imported from the more metropolitan areas of Spokane or Yakima. Or, the consumption patterns are simply less.

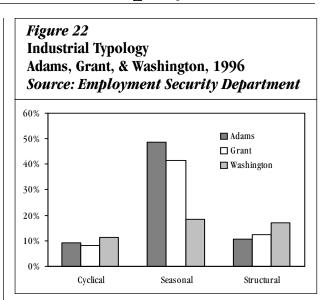
Agriculture's quotient in Adams County was 7.7; in Grant County, 6.7. This points to a disproportionately large share of county employment devoted to agriculture in comparison with the state. Naturally, it also points to a very high level of exportation of farm produce.

Industrial Typology and Unemployment

A number of specific industries within Washington State have been defined as being seasonal, cyclical, or structurally mature. These designations relate to the level of variation in employment or to a decrease in employment over specific time periods. Because all three categories are reflective of employment instability or decline, the degree to which a county's economic base depends upon these industries reveals a tendency toward or away from unemployment.

Industries with *seasonal* employment patterns are characterized by large employment increases and decreases in particular months of the year. These variations occur during the same months each year and are caused by factors that repeat each year such as poor weather conditions, holiday seasons, and weather-related activities such as harvesting. Industries with cyclical employment patterns are characterized by sharp increases and decreases in employment during periods of general economic growth and contraction. The employment patterns are generally related to upswings and downturns in overall economic activity. Structurally mature industries are characterized by long-term declines in total annual average employment. These declines may be the result of increased productivity, automation, technological change, exhaustion of natural resources, or other factors.

The number of workers employed in these type industries in Adams and Grant counties in 1996 has been tabulated (*see Figure 22*). Not surprisingly, Adams and Grant counties have an employment base strongly affected

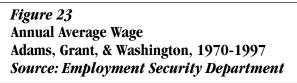


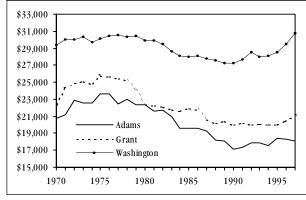
by seasonal industries, i.e., agriculture and related activities. Both counties had relatively fewer workers in cyclical and structurally maturing industries than the state but far more in seasonal industries. Industries with seasonal employment patterns accounted for 19 percent of Washington's workers, 42 percent of Grant's, and 49 percent of Adams'. Cyclical type industries employed 11 percent of workers statewide, 8 percent in Grant County, and 9 percent in Adams County. Structurally maturing industries employed 17 percent statewide, 13 percent in Grant County, and 11 percent in Adams County. The much larger concentration in seasonal employment among the counties, of course, portends a higher level of employment volatility throughout the course of a year.

Average Annual Wage

The annual average wage is derived by dividing the total wages paid in an area by the annual average employment in that area. Jobs not covered by the unemployment insurance program are excluded; however, approximately 90 percent of all employment in the state is covered under the program. (Note—all amounts here have been inflation adjusted to 1997 dollars.) The average wage does not include any benefits (e.g., insurance or retirement plans) other than actual wages.

In 1997, the average wage in Adams County was \$18,056 (ranked thirty-eighth among Washington's 39 counties) and in Grant County was \$21,162 (ranked thirteenth). The statewide average was \$30,755. The major reason for the counties' lower wages was their very heavy concentration of employment in agriculture, which is very seasonal and traditionally has a relatively low wage. *Figure 23* shows the average wage for both counties and the state since 1970. *Figure 24* shows the average wage by industry sector for 1997.





Adams County. In real dollars, the average wage in Adams County peaked in 1975 at \$23,646. This highpoint occurred in conjunction with three to four years of ex-

Figure 24
Average Wage by Industry
Adams, Grant, and Washington, 1997
Source: Employment Security Department

	Adams	Grant	State		Adams	Grant	State
Total	\$18,056	\$21,162	\$30,755	Building Materials/Garden Supplies	\$15,539	\$18,507	\$23,07
Agriculture, Forestry & Fishing	\$12,989	\$13,831	\$15,369	General Merchandise Stores	*	\$11,682	\$18,72
Agricultural Production Crops	\$14,027	\$13,201	\$12,329	Food Stores	\$13,071	\$15,910	\$19,52
Agricultural Production Livestock	*	\$22,802	\$18,706	Automotive Dealers/Service Stations	\$16,184	\$18,166	\$26,98
Agricultural Services	*	\$15,065	\$16,935	Apparel & Accessory Stores	\$6,355	\$8,335	\$19,16
Construction	\$20,581	\$25,009	\$32,600	Furniture & Homefurnishings Stores	*	\$15,387	\$22,86
General Building Contractors	\$18,186	\$18,540	\$30,984	Eating & Drinking Places	\$7,517	\$8,464	\$10,32
Heavy Construction, Ex. Building	\$21,533	\$31,530	\$41,280	Miscellaneous Retail	\$9,799	\$16,010	\$16,87
Special Trade Contractors	\$21,198	\$24,693	\$31,268	Finance, Insurance & Real Estate	\$20,684	*	\$37,48
Manufacturing	\$22,509	\$28,880	\$40,724	Depository Institutions	\$24,724	*	\$32,85
Food & Kindred Products	\$22,761	\$25,726	\$29,964	Insurance Agents, Brokers, & Service	\$19,842	*	\$37,88
Apparel & Other Textile Products	*	\$9,049	\$19,437	Services	\$15,463	\$15,660	\$30,94
Printing & Publishing	*	\$19,370	\$30,378	Hotels & Other Lodging Places	\$7,924	\$9,606	\$15,39
Chemicals & Allied Products	*	\$45,931	\$49,008	Personal Services	\$14,414	\$11,747	\$15,76
Stone, Clay, & Glass Products	*	\$21,421	\$33,712	Business Services	\$13,063	\$13,422	\$52,01
Primary Metal Industries	*	\$41,511	\$43,674	Auto Repair, Services, & Parking	\$19,147	\$17,748	\$23,03
Industrial Machinery & Equipment	*	\$28,935	\$39,532	Miscellaneous Repair Services	\$15,541	\$19,498	\$27,08
Transportation & Public Utilities	\$26,377	\$31,607	\$38,602	Motion Pictures	*	\$5,156	\$13,45
Trucking & Warehousing	\$19,953	\$25,121	\$28,592	Amusement & Recreation Services	\$10,154	\$10,467	\$18,28
Transportation By Air	*	\$30,724	\$36,524	Health Services	\$24,651	\$24,470	\$29,23
Transportation Services	*	\$16,196	\$28,347	Legal Services	\$11,669	\$21,280	\$39,59
Communication	*	\$54,884	\$49,047	Social Services	\$11,456	\$13,445	\$15,41
Electric, Gas, & Sanitary Services	\$50,658	\$3,263	\$51,229	Membership Organizations	\$18,059	\$11,762	\$19,82
Trade	\$17,310	\$16,412	\$21,677	Engineering & Management Services	\$22,213	\$24,200	\$42,28
Wholesale Trade	\$25,998	\$26,629	\$36,653	Private Households	\$6,902	\$6,803	\$8,31
Wholesale Trade Durable Goods	\$30,684	\$27,214	\$39,654	Government	\$22,956	\$29,409	\$32,82
Wholesale Trade Nondurable Goods	\$24,193	\$26,293	\$32,838	Federal	\$33,041	\$38,940	\$41,93
Retail Trade	\$10,635	\$13,229	\$16,821	State	\$24,413	\$29,504	\$32,97
				Local	\$22,431	\$28,812	\$30,34

traordinarily high levels of farm income, the like of which has not been seen since. Following the peak, though, the annual average started declining. This was a phenomenon that was also afflicting the state as well as the national average wage. After a fifteen-year downward slide, it bottomed out in 1990 at \$17,089. The wage has increased some, but not significantly, since then. From 1996 to 1997, however, it dropped by about \$200.

While the trend in Adams County followed the state, with ups and downs occurring at about the same time, it occurred at a lower level in the county and the decline during the 1970s and 1980s was far more severe. The state's wage declined by 11 percent during that time but in Adams County the decrease was on the order of 28 percent. That was a substantial drop in real wages.

Every industry sector in the county has a lower wage than its statewide counterpart, some substantially lower. Construction and manufacturing—two sectors which generally see high wages and which push up the averages—had significantly less than their statewide counterparts. The services sector in Adams County only paid half of what was paid by services statewide.

Grant County. The average wage in Grant County, like in most agricultural areas, falls well below the statewide average. Although the 1997 annual average was about \$3,000 more than in neighboring Adams County, it was close to \$10,000 less than the state. Historically, the county's highpoint was 1975 when the wage reached \$25,770, only about \$5,000 less than the state. That year was dominated by very strong farm income. Since then, there has been an almost constant increase in the gap between the county and the statewide average. Since 1975, the county's wage decreased steadily until 1990, but unlike the state, did not then begin increasing. It has remained essentially flat since, although there were upturns in 1996 and 1997.

Like in Adams County, wages by industry sector are all lower than their statewide counterparts. The services sector wage shows the greatest disparity, being only 51 percent of services wages throughout the state. Fortunately, government, which is a large sector in terms of employment, was relatively close to parity with the state at 90 percent. Wages of the other sectors were all less than the statewide averages, some significantly less.

Agriculture

Farming is *the* big industry in Adams and Grant counties and it dominates the economic life of the area. Topography and climate combine to make the area a premiere agricultural region and the two counties produce a tremendous variety and quantity of farm produce, including field crops, vegetables, and tree fruits.

Tending and harvesting these crops requires a large labor force. Some of the crops, wheat, for instance, are not particularly labor intensive; however, most field crops and orchards need many workers, often throughout the year. Consequently, agricultural employment is a large facet of the area's overall employment.

Of the major industry sectors, agriculture, in terms of employment, is the largest in both counties. One out of every four covered employees is a farm worker. (In Adams County, the share is 31 percent, in Grant County, 24 percent.) If those percentages seem high, it is because they are: throughout the state the proportion of farm workers to all workers is less than 4 percent.

Adams County. Because of its location in the Palouse region, Adams County has climatic and soil conditions conducive to wheat farming, and wheat is the premiere crop in the county. In 1996, the county ranked fourth in wheat production among Washington's 39 counties, har-

vesting about 318,000 acres to produce 18 million bushels of wheat. About one-third of all the farms in the county raise wheat. Wheat production, however, is not a laborintensive operation. It is highly mechanized and requires high amounts of capital rather than large numbers of workers. Some 125 workers were employed in the wheat fields in 1997.

Agricultural employment in Adams County stems, primarily, from orchards and assorted field crops, mainly potatoes. Over 2,200 workers, on average, were in the agricultural sector in 1997, and about one-fourth (552) of them worked in tree fruit orchards. Although there are cherries and pears, apples are the main tree fruit grown in the county. About 16,000 acres of potatoes were harvested in 1996, requiring 334 workers.

Although it does vary from crop to crop, the average wage in agriculture is relatively low, especially in comparison to other industry sectors. While one factor causing this is simply the lower wages traditionally associated with farm work, a primary cause is also the part-time and seasonal nature of the work. The average annual wage in agriculture (\$12,989) does not necessarily reflect the wages of a full-time, year-round worker. Agricultural employment varies sharply from month to

Figure 25
Agriculture Data
Adams County
Source: Employment Security Department

Crops - 1996	Acres Harvested	Average Yield	Total Production	Rank in State
Wheat, Winter (bushels)	286,000	58.7	16,787,000	4
Wheat, Spring (bushels)	31,700	44.9	1,422,000	5
Wheat, All (bushels)	317,700	57.3	18,209,000	4
Barley (bushels)	6,900	58	2,552,000	3
Corn for Grain (bushels)	5,900	157	926,400	6
Corn for Silage (tons)	1,600	30	48,000	6
Potatoes (cwt)	16,000	570	9,120,000	4
Hay, Alfalfa (tons)	19,500	6.5	126,500	4
Hay, Other (tons)	2,400	4	9,500	20
Hay, All (tons)	21,900	6.2	136,000	6
Dry Beans (cwt)	4,400	22.3	98,000	2
Kentucky Bluegrass Seed (cwt)	2,300	8.7	20,000	4
Peppermint (lbs)	7,000	104	730,000	2
Asparagus (cwt)	800	35	28,000	5
Onions, Storage (cwt)	1,000	500	500,000	4
Source: Washington Agricultural Statist	tics Service		,	
Orchards - 1992	Number	Total	Rank	
	of Farms	Acres	in State	
Land in Orchards	31	2,343	9	
Apples	28	2,247	9	
Source: 1992 Census of Agriculture				
Livestock Inventory	Number	Rank		
	of Head	in State		
All Cattle (January 1, 1997)	61,500	4		
Beef Cows (January 1, 1997)	9,800	11		
Milk Cows (January 1, 1997)	2,300	15		
Sheep & Lambs (January 1, 1997)	1,900	7		
Hogs & Pigs (December 1, 1996)	2,000	4		
	510	29		

Figure 26
Agriculture Data
Grant County
Source: Employment Security Department

Crops - 1996	Acres	Average	Total	Rank
_	Harvested	Yield	Production	in State
Wheat, Winter (bushels)	207,300	69	14,301,000	5
Wheat, Spring (bushels)	39,600	75.8	3,000,000	1
Wheat, All (bushels)	246,900	70.1	17,301,000	5
Barley (bushels)	7,900	83.9	663,000	8
Corn for Grain (bushels)	34,300	160	5,488,000	2
Corn for Silage (tons)	6,300	27.6	173,600	3
Potatoes (cwt)	40,500	590	23,895,000	2
Hay, Alfalfa (tons)	126,000	6.2	775,000	1
Hay, Other (tons)	8,900	4.1	36,500	7
Hay, All (tons)	134,900	6	811,500	1
Dry Beans (cwt)	12,900	23.2	299,000	1
Alfalfa Seed (cwt)	4,500	7.3	33,000	2
Peppermint (lbs)	6,000	100	600,000	3
Spearmint (lbs)	1,150	123	142,000	2
Asparagus (cwt)	1,900	36.8	70,000	3
Carrots - Proc (cwt)	1,400	32.9	46,000	2
Green Peas - Proc (cwt)	14,700	2.6	37,500	1
Onions, Storage (cwt)	4,000	515	2,060,000	1
Sweet Corn - Proc (cwt)	39,100	9.2	358,000	1

Source: Washington Agricultural Statistics Service

Orchards - 1992	Number	Total	Rank
	of Farms	Acres	in State
Land in Orchards	292	29,337	2
Apples	243	24,154	3
Apricots	36	332	1
Cherries, All	87	1,945	4
Grapes	20	1,389	4
Nectarines	23	166	3
Peaches	26	154	5
Pears	52	1,034	4
Plums & Prunes	9	136	3

Source: 1992 Census of Agriculture

Livestock Inventory	Number	Rank
	of Head	in State
All Cattle (January 1, 1997)	114,500	2
Beef Cows (January 1, 1997)	19,400	5
Milk Cows (January 1, 1997)	10,400	8
Sheep & Lambs (January 1, 1997)	6,000	2
Hogs & Pigs (December 1, 1996)	7,800	2
Horses & Ponies (1992)	3,972	2

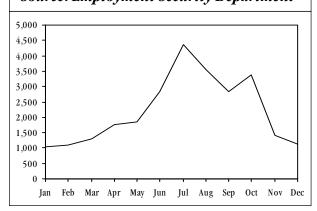
Source: Washington Agricultural Statistics Service, except for Horses & Ponies, which came from the 1992 Census of Agriculture

month: January of 1997 saw 1,052 covered workers; July of the same year saw 4,357. The number of jobs increases dramatically as the weather warms up and the tasks associated with farming proliferate. Employment culminates with the harvest in September and October and declines rapidly after that (*see Figure 27*).

Grant County. Orchards are more numerous in Grant County than in Adams. With 30,000 acres of land in labor-intensive orchards, the county has a high level of farm-related employment. Grant County ranks second in the state in orchard acreage and third in the state in the number of crop workers (after Yakima and Chelan counties). The bulk of tree fruit production is apples, but cherries, apricots, pears, peaches, nectarines, and plums are also grown.

Although orchards are wide spread, wheat farming is an important activity with close to 250,000 acres harvested in 1996. While wheat farming is not labor-intensive, it does generate substantial revenues, much of which is reinvested in the local area for equipment, fertilizers,

Figure 27
Monthly Agricultural Employment
Adams County, 1997
Source: Employment Security Department

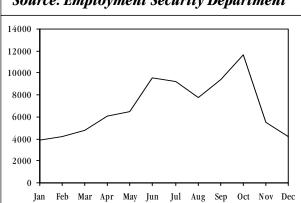


transport, etc., and contributes to the area's general prosperity. Grant County also has important acreage in potatoes and corn as well as a number of other crops. According to the agricultural census, the county had the second highest inventory of cattle, sheep and lambs, hogs and pigs, and horses of the counties in the state.

All told, the county averaged 6,900 workers in the entire agricultural sector in 1997. The largest group of these workers was employed in the tree fruit orchards, about 3,112. Potatoes and other field crops employed relatively large numbers, as did general farms. Ornamental nursery products used over 550 workers.

Agricultural work in the county is highly seasonal. While the sector's annual average employment in 1997 was close to 7,000, the number of jobs ranged from less than 4,000 in January to almost 11,700 in October at the peak of the apple harvest (*see Figure 28*). The seasonal and part-time nature of the work contributes to its relatively low average wage, \$13,831.

Figure 28
Monthly Agricultural Employment
Grant County, 1997
Source: Employment Security Department



Construction

Construction employment in Adams and Grant counties, indexed to 1970=100, is shown in *Figure 29*. Both counties had strong growth during the bulk of the 1970s, most of it associated with work on the Grand Coulee Dam. From 1973 to 1983, work to boost hydroelectric output included the addition of six pump/generators to the system. As the project ended, construction employment decreased rapidly. The national economic doldrums of the early 1980s also had a negative effect upon employment in the counties. Since then, construction employment in Adams County has been steady but at a significantly reduced level while in Grant County growth has almost paralleled that of the state. Mining employment, though relatively minimal, is included in construction.

Adams County. In Adams County, employment fell from 250 in 1981 to 70 in 1985. After that precipitous drop, employment has ranged from about 90 to 130. In 1997, the level was 120. Given the absence of any major construction projects, such as work on the Grand Coulee Dam, this is probably an appropriate level of construction employment for a rural, agricultural county like Adams. Construction jobs equate to about 2 percent of the nonagricultural work force, considerably less than the 6 percent that statewide construction enjoys.

Within the county's construction sector, about half of the workers are employed in special trades, i.e., plumbing, electricity, carpentry, etc. The next largest group is heavy construction with about 25 percent of the total. The remainder are general building contractors, primarily involved in residential construction. Average wages in construction are significantly less in the county than they are statewide.

Grant County. At about 5 percent of all nonagricultural employment, construction employment in Grant County closely parallels the statewide share. Since 1982, when the county's construction employment hit its low-point of 630 workers, the sector has grown to 1,120 in 1997. While this is less than its previous peaks, the overall trend since the early 1980s has been expansion.

Of construction workers in Grant County, most, about 56 percent, are engaged in special trades work. Some 23 percent work in heavy construction, and about 21 percent work in general building construction (primarily residential). The average wage for construction workers in the county is less than the statewide average: \$25,009 versus \$32,600 (1997).

Figure 29
Construction & Mining Employment
Adams, Grant, & Washington, 1970-1997
Source: Employment Security Department

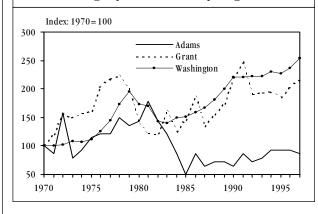


Figure 30
Construction & Mining Employment
Adams County, 1970-1997
Source: Employment Security Department

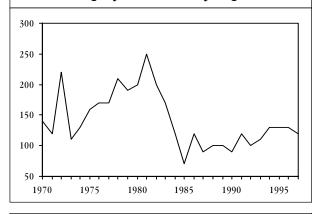
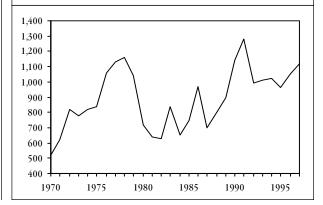


Figure 31
Construction & Mining Employment
Grant County, 1970-1997
Source: Employment Security Department



In Grant County there is a healthy mining sector. One firm, mining diatomaceous earth, employs a fair number of relatively well-paid workers. Other than that, there is little mining employment in the two counties.

Manufacturing

In general, manufacturing employment in the area has been on the upswing since the national recessions of the early 1980s (*see Figure 32*). Those recessions, which exacerbated the decreases in an already declining work force, drove manufacturing employment to its lowest point of the period shown on the chart. While there have been some short-term drops since then, the trend has been toward expansion.

Adams County. Manufacturing in Adams County is, for all practical purposes, food processing. The driving force behind food processing, of course, is the area's huge agricultural output: from potatoes to apples to corn, the agricultural abundance is processed into products that are distributed to regional, national, and international markets. Ninety-seven percent of Adams County's manufacturing sector is food processing. In 1997, manufacturing employed 1,110 workers.

After hitting a low point in 1982 of only 610 jobs, manufacturing has expanded since, albeit slowly. For the entire 1970-97 period, the annual average employment gain was a modest 1.4 percent: however, the county as a whole (all sectors) had only a 1.8 percent annual increase. Statewide, manufacturing growth averaged 1.6 percent annually.

While the county's manufacturing employment increased, relatively, about the same amount as the same sector statewide, there is a large difference between the two. Agriculture is the driver behind Adams County's manufacturing sector. Most food processing workers in Adams County are involved with the production of frozen potatoes and specialty items such as "TV" dinners. The driver behind statewide manufacturing is high tech and aerospace and large firms from the Puget Sound area. The average manufacturing wage in the county was \$22,509; the average wage statewide was \$40,724. Within the county, though, the manufacturing wage is among the higher paying sectors.

Grant County. In 1997, manufacturing's 4,440 workers accounted for 20 percent of the county's nonfarm jobs. Growth has been strong over the last decade, doubling since 1988, and averaging an 8.1 percent increase

Figure 32
Manufacturing Employment
Adams, Grant, & Washington, 1970-1997
Source: Employment Security Department

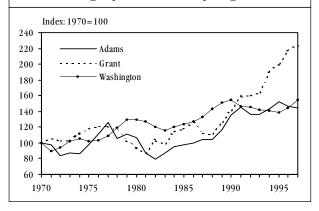
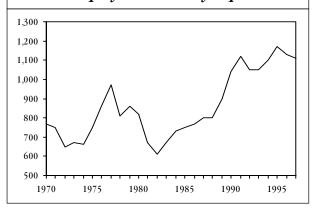


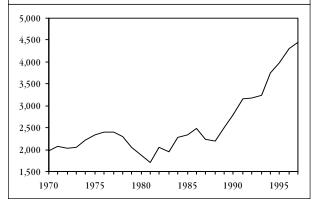
Figure 33
Manufacturing Employment
Adams County, 1970-1997
Source: Employment Security Department



per year for that time frame. This remarkable increase is even more impressive when compared to the period before that: from 1970 to 1988, 220 jobs were created; from 1988 to 1997, 2,240 more jobs were added.

Manufacturing in Grant County has diversified beyond food processing, although producing frozen fruits and vegetables and dehydrated fruits and vegetables still remains the largest industry in the sector. Other industries produce farm machinery, publications, fabricated met-

Figure 34
Manufacturing Employment
Grant County, 1970-1997
Source: Employment Security Department



als, components for computer chips, navigational instruments, and many other items. Most recently, Genie Industries, a multinational Redmond-based manufacturer of lift products, succeeded in its bid to have property in Moses Lake rezoned in order to build a new facility which could eventually employ over one thousand workers. While food processing still accounts for 62 percent of all manufacturing employment, as little as ten years ago the figure was almost 80 percent.

The growth in manufacturing not related to agriculture stems from advantages the county has over other areas. There are a number of them.

- Cheap electricity, among the lowest rates in the nation, is available from the county's PUDs; many of the firms locating in Grant County are those requiring a large amount of electricity.
- The Grant County International Airport in Moses Lake can accommodate any size aircraft (it often handles overflow traffic from Sea-Tac).
- The Moses Lake area has been designated as a foreign trade zone: a company may import materials from abroad, process them in a factory here, and export the product to foreign markets without paying U.S. duty.
- The cost of living is significantly less than in large industrialized areas such as Seattle or Portland.

The manufacturing sector is a vital part of the region's economy. Employment is expanding and the jobs provide relatively high wages. And while the employment levels in food processing are affected by the seasonality of agricultural crops, the volatility of employment is not nearly as great as it is in the agricultural sector. This strong sector constitutes a big plus for the area.

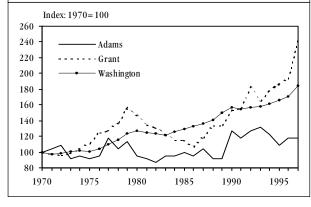
Transportation, Communication, and Utilities (TCU)

The TCU sector encompasses industries as diverse as trucking and warehousing, television and radio, and gas, electric, and sanitation services. *Figure 35* indexes employment to 1970=100 and compares the two counties and Washington State. The trucking and warehousing industry is, by far, the largest in the sector in both counties. (This is usually the case in agricultural areas.)

Adams County. Sector employment, after remaining quite stable from 1970 to 1989 (though with a brief expansion and contraction in the mid- to late-1970s), increased dramatically in 1990 (*see Figure 36*). The jump of about 80 workers, mainly in the trucking and warehousing industry, was followed by a slight decline over the next few years. In 1997, employment stood at 260.

TCU had about a 5 percent share of all nonfarm jobs in the county, which mirrors the share size of the sector statewide. The composition of the sector is quite different, though. Over 60 percent of sector employment in the county is in trucking and warehousing but only about one-fourth is statewide. Electric, gas, and sanitary services amounted to 20 percent of sector jobs in the county

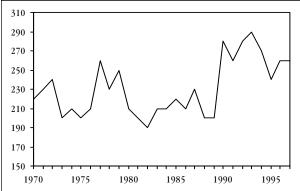
Figure 35
TCU Employment
Adams, Grant, & Washington, 1970-1997
Source: Employment Security Department



but only 9 percent statewide. There were very few county jobs in communications or other sector industries.

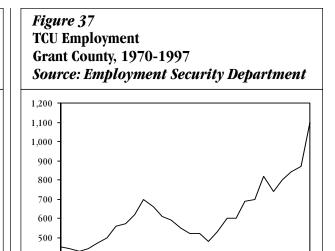
The sector is a relatively well paid one: in fact, at \$23,377, it has the highest average wage of all sectors in the county.

Figure 36
TCU Employment
Adams County, 1970-1997
Source: Employment Security Department



Grant County. TCU employment in Grant County hit a peak in 1979 but then declined steadily until 1986 (*see Figure 37*). The next year showed an uptick and strong growth ensued; the 1979 peak was equaled in 1990 and surpassed in 1991. Growth continued even more strongly after 1993. In 1997, there were 1,100 jobs in the sector.

The sector has a 5 percent share of total nonfarm employment; the same as statewide. Its average growth rate since 1970 has been 3.4 percent per year, a moderate to good rate of growth. However, that figure includes seven consecutive years of decline that ended in 1986. Expansion has been robust since then: from



1986 through 1997, TCU averaged 7.8 percent annualized growth.

1995

Of the various industries making up the sector, trucking and warehousing is the largest by far. Large quantities of produce are grown in the county and it all has to be transported and stored. The ups and downs of the 83 trucking and warehousing firms in the county inordinately sway the entire sector's growth or contraction: its employment makes up almost two-thirds of all TCU jobs. There is also fairly substantial employment in air transportation (the international airport mentioned earlier) and in communication. Other industries have minimal employment.

Trade

The trade sector includes both wholesale and retail industries. Wholesale trade is divided into durable and nondurable goods. In this region, the bulk of wholesale trade employment is related to nondurable goods; primarily farm products and farm supplies such as fertilizer and feed. Retail trade includes industries such as department stores, grocery stores, and furniture stores, and it also includes eating and drinking places, which normally employ numerous workers.

Figure 38 shows trade employment indexed to 1970=100 in both counties and the state. Through much of the 1970s and into the 1980s, growth in the counties often equaled or surpassed that of the state. Probably a secondary effect of the construction work on the Grand Coulee dam, the growth, however, ended with completion of work on the dam and with the national "double-dip" recessions of the same period. Although growth rates



increased in the 1990s, both counties substantially lag behind the state as a whole.

Adams County. Through most of the 1970s, growth was strong in Adams County (*see Figure 39*). From 1971 to 1978, the number of jobs grew by 80 percent, increasing from 890 to 1,600. The employment drop from 1984-89 (350 jobs were lost) occurred almost entirely in the wholesale trade of nondurable goods. Since then, gradual increases brought the level up to 1,510 in 1997. This remains less than the 1984 peak of 1,650. Wholesale and retail trade account for 29 percent of all nonfarm jobs in the county and, over the entire 1970-97 period, employment increased by 59 percent, averaging 1.7 percent annually.

Wholesale trade made up 43 percent of trade employment (24 percent statewide) and paid an average wage of \$25,998 in 1997. The largest employing industries within the wholesale sector were those which sold farm and garden machinery, fresh fruits and vegetables, and farm supplies.

Retail trade, with 57 percent of trade sector employment, had its largest number of jobs at eating places (371) followed by food stores (179). Gasoline stations employed over 75 workers.

The overall annual average wage for trade in Adams County was \$17,310 in 1997. That average was bolstered considerably by wholesale trade because retail had a wage of only \$10,635. Within retail, the largest employer (eating and drinking places) also had a relatively low average wage (\$7,517). Wages in the retail sector are depressed significantly because so much of the work is part time. (Computation of the average wage does not take part-time work into account: it divides total wages paid by average yearly employment, whether that employment is full or part time. And it does not include tips.)

Grant County. The trade sector in Grant County is quite large and diverse. It accounts for 26 percent of nonfarm employment. Only government and agriculture employ more workers. Since 1970, the total number of trade jobs has almost doubled, going from 2,900 to 5,720 in 1997. This equates to a 2.5 percent annualized growth rate. Distribution of jobs in the county closely parallels the state, which also has nearly 25 percent of all nonfarm jobs in the trade sector. Within trade, both the county and the state have about one-fourth of the jobs in wholesale and three-fourths in retail.

Figure 39
Trade Employment
Adams County, 1970-1997
Source: Employment Security Department

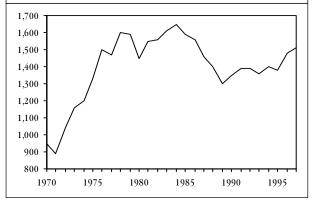
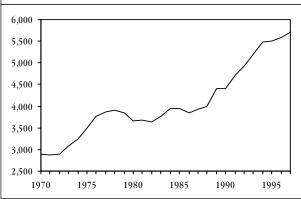


Figure 40
Trade Employment
Grant County, 1970-1997
Source: Employment Security Department



Farm and garden machinery accounts for the most employment in wholesale trade of durable goods. Industrial machinery, transportation equipment, and motor vehicle supplies are also large durable goods wholesale industries. In nondurable goods, wholesale trading of farm supplies and fruits and vegetables constitute the most employment. All in all, covered employment in wholesale trade came to over 1,300 workers in 1997.

Retail trade, although its wages average about half of wholesale, has much greater employment. Significant employment is found in eating and drinking places (1,496), food stores (819), and auto dealers and service stations (679). While wages are relatively low—the average in 1997 was \$13,229 compared to \$26,629 in wholesale—the averages are strongly influenced by high levels of part-time work in the retail sector.

Finance, Insurance, and Real Estate (FIRE)

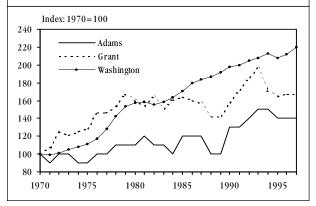
This sector consists of banks, savings and loans, credit unions, stockbrokers, insurance agents, carriers, and brokers, and real estate agents and brokers, etc. The growth rates for sector employment since 1970 are shown in *Figure 41* for the counties and the state. Although Grant County's growth surpassed the state throughout the 1970s, neither county has kept pace with the state for most of the period shown. The number of jobs in Adams County increased by only 40 percent, in Grant County 68 percent, and statewide 120 percent.

Finance, insurance, and real estate firms generally must serve a relatively large population base in order to be successful. The services offered by these firms can often be more efficiently provided by larger firms even though geographically distant. Consequently, employment in this sector is underrepresented in the counties—each has less than a 3 percent share of nonfarm employment while statewide the FIRE sector represents 5 percent of all workers.

Adams County. In 1997, Adams County had 140 workers in the FIRE sector. While the small size of the sector makes it difficult to measure—witness the sawtoothed effect of *Figure 42*—the pattern has been one of growth, albeit slow, over the last couple of decades. The growth, however, has merely served to keep up with population growth: the share size of the sector has not changed appreciably since 1970.

About half of the sector's employment was in banks. The depository institutions paid an average wage of \$24,724, well above the sector average of \$20,684. The other large industry in the county, also with close to half

Figure 41
FIRE Employment
Adams, Grant, & Washington, 1970-1997
Source: Employment Security Department



of the employment, was insurance agents. This industry is characterized by part-time, commission-only, employment and had an average wage of \$19,842 in 1997.

Grant County. Employment grew from 280 in 1970 to 470 in 1997. This moderate growth (1.9 percent per year) over the period has consistently kept the share size of the sector at about 2 to 3 percent of all nonfarm employment. *Figure 43* shows the changes in employment since 1970.

Although specific employment and wage data for the sector has been suppressed to avoid revealing data about individual employers, the various types of depository institutions employ the largest number of workers. Insurance and real estate firms employ about the same number of workers though at a lesser level than banking.

Figure 42
FIRE Employment
Adams County, 1970-1997
Source: Employment Security Department

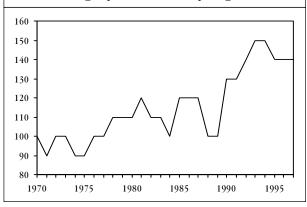


Figure 43
FIRE Employment
Grant County, 1970-1997
Source: Employment Security Department



Services

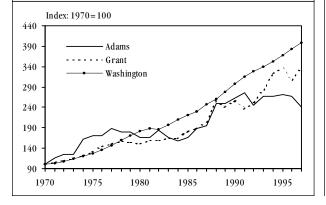
Industries in the services sector include, among other things, auto repair, health services, legal services, amusement services, hotels, engineering, and motion pictures. In terms of employment, this wide range of industries is, without doubt, the fastest growing sector in both counties as well as throughout the state. Growth in Adams County from 1970 to 1997 amounted to 147 percent; in Grant County, 238 percent; and statewide, almost 300 percent (see Figure 44).

Adams County. In 1970, the services sector employed 240 workers and amounted to 8 percent of nonfarm jobs. The number of jobs grew to 580 over the next twenty-seven years and in 1997 amounted to 11 percent of the work force. As *Figure 45* shows, it was not steady growth. After strong growth in the early- to mid-1970s, there was stagnation and decline from the late 1970s until about 1985. Strong growth for a few years after that was followed again by flatness from 1988 through the present. The decrease from 1996-97 was caused by an employment decrease in nursing homes.

The county's services sector is quite a bit smaller, relatively, than it is statewide where it amounts to about 27 percent of all jobs. As a rule, the industries in the services sector, especially producer services which generate much employment statewide, require a fairly large population base to be successful.

Services has an annual average wage of \$15,463—only agriculture and retail trade were lower. The low wage can be attributed to large amounts of part-time work in some industries and to relatively low levels of pay in some industries.

Figure 44
Services Employment
Adams, Grant, & Washington, 1970-1997
Source: Employment Security Department



The largest industry in the sector is health services, which employed about 202 in 1997. Health services includes those employed in the offices of physicians, dentists, optometrists, osteopaths, and chiropractors as well as in nursing care facilities. Private households employed over 125 workers and hotels employed about 60.

Grant County. The services sector in Grant County is relatively larger than in Adams County but, nevertheless, is significantly smaller than the proportional statewide share (16 versus 27 percent). The sector employed about 3,650 in 1997, a large increase from 1,080 in 1970 (*see Figure 46*). The overall average wage for services was \$15,660: relatively low but undoubtedly influenced by high levels of part-time work in some of the industries.

Figure 45
Services Employment
Adams County, 1970-1997
Source: Employment Security Department

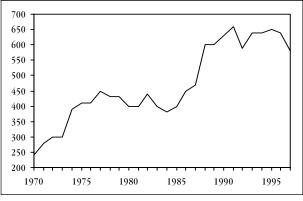
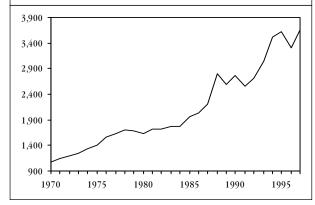


Figure 46
Services Employment
Grant County, 1970-1997
Source: Employment Security Department



Health services provided the most jobs in the sector with close to one-fourth of all employment. Within the sector, the offices of medical doctors employed the most with strong employment also in skilled nursing care facilities and the offices of dentists. Social services was a large employer, as was hotels and lodging places. Private households also employed a fairly large number.

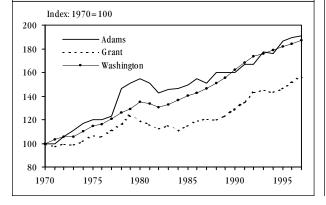
Grant County had little to no employment in producer services: the type of industries (found, for example, in the Puget Sound area) that generate high payrolls. These are referred to as producer services because their services are primarily sold to other producers. Engineering, architectural, and management services, business services related to computers, etc., are all producer services and are underrepresented in the county. More often than not, these type industries are found in areas with large population bases.

Government

Government is an important employer in both Adams and Grant counties. In the nonagricultural employment series, it is the second largest sector in Adams County and the largest in Grant County. (In the covered employment series, agriculture is the largest employer in both counties.) *Figure 47* shows the growth rates of employment in both counties and the state since 1970. Employment is indexed to 1970=100. Growth in Adams County has closely paralleled statewide growth while in Grant County the rate fell off sharply after the recessions of the early 1980s and has grown at a lower level since.

Adams County. Government jobs almost doubled since 1970 in Adams County. The number grew from 750 to 1,430 in 1997, a 91 percent increase (*see Figure 48*). While the rate of increase does not approach that found in the services sector, the gains have been steady with little volatility and employment is far greater. The government sector adds a strong element of stability to the area's economy and generates a large payroll (over \$31 million annually). The average wage paid by government was \$22,956 in 1997.

Figure 47
Government Employment
Adams, Grant, & Washington, 1970-1997
Source: Employment Security Department



Federal and state government has only a minimal presence in the county. Nine out of ten public jobs are with local government and the remainder are split fairly evenly between the federal and state levels. Most employment at the local level is with K-12 education (about 650 faculty and staff). Almost 300 jobs are concerned with general governmental functions and about 170 are with the hospitals in Othello and Ritzville. Another 62 are concerned with irrigation systems in the area.

All told, covered employment in 1997 had 1,228 workers in local government, 52 in federal government, and 82 in state government. The average wage at the local level was \$22,431; at the federal level, \$33,041; and at the state level, \$24,413.

Grant County. *Figure 49* on the next page shows employment in Grant County since 1970. The decline in employment that started in 1980 and lasted until 1984 shows that government employment is not necessarily recession-proof. The employment peak that was reached in 1979 was not surpassed until 1990 but employment gains have been relatively strong since then, averaging

Figure 48
Government Employment
Adams County, 1970-1997
Source: Employment Security Department

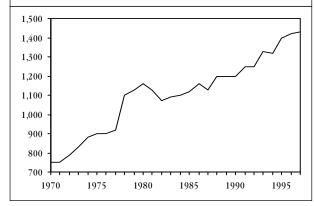
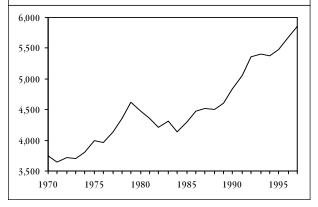


Figure 49
Government Employment
Grant County, 1970-1997
Source: Employment Security Department



3.1 percent annually. The number of jobs in 1997 was 5,850; up from 3,740 in 1970, a 56 percent increase. The average wage for government was \$29,409 in 1997.

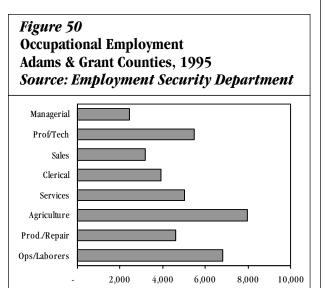
The great majority of Grant County public employment is at the local level. Governmental functions, K-12 education, the hospitals, and the Grant County Public Utility District, account for most of local government employment. The educational system was the largest employer with over 2,000 employees in 1997. General governmental employment, which includes executive and legislative functions, amounted to about 830 workers. The hospitals and the electric service workers employed by the PUD also provided substantial employment. In all, local government employed almost 4,700 workers and paid them an average wage of \$28,812.

State government employment totaled about 650 workers and the federal government had close to 300 employees. About one-third of federal jobs were with the postal service and the rest were scattered among a number of different agencies. At the state government level, the biggest employer was Big Bend Community College in Moses Lake, which accounted for 40 percent of state government employment.

OCCUPATIONAL PROFILE

A different but informative way to view an area's work force is in terms of occupational rather than industrial divisions. *Figure 50* shows employment in the major occupational divisions in Adams and Grant counties (combined) and *Figure 51* shows the percentage increase of those divisions from 1995 to 2005.

Of significance is that the counties' work forces are made up of a large percentage of "blue-collar" type occupations and a smaller share of "white-collar" occupations, particularly in comparison to the state. Some 49 percent of jobs in the two-county area are blue-collar whereas the state share is only 28 percent. The large agricultural and food processing work force, of course, is the element that causes this difference.



Agricultural occupations have the largest number of workers followed by operators, fabricators, and laborers and professional, paraprofessional, and technical. Growth, however, will be greatest in professional/technical, services and sales, all white-collar jobs. Growth will be slowest—with virtually no change—in agricultural occupations. In 2005, operators/laborers will be the largest occupational grouping followed by professional/technical and then agricultural jobs. Growth in white-collar jobs will double that of blue-collar jobs.

Figure 52 on the next page is based on Occupational Employment Surveys (OES) conducted in the Adams and Grant County area by the Employment Security Department in 1996. It shows the occupational title and hourly wage of jobs in the area. The hourly wage ranged from almost \$50 per hour for a physician to about \$5 per hour for a child care worker in a private household.

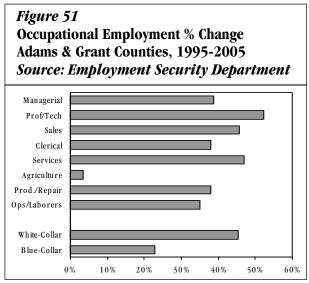


Figure 52
Occupational Wages
Adams and Grant Counties, 1996
Source: Employment Security Department

Title	Hourly Mean Wage	Title	Hourly Mean Wage
Accountant & Auditor	\$17.60	Electrical & Electronic Engineer	\$24.57
Adjustment Clerk	\$12.15	Electrical & Electronic Technician	\$14.11
Administrative Service Manager	\$22.24	Electrical Power-line Install & Repair	\$19.98
Agricultural & Food Scientist	\$16.82	Electrician	\$20.15
Amusement & Recreation Attendant	\$7.41	Emergency Medical Technician	\$15.67
Animal Caretaker, except Farm	\$7.77	Engineering, Math, Natrl Science Mgr	\$28.28
Artist & Related	\$14.18	Excavating & Loading Machine Operator	\$15.62
Assemble, Fabricate, ex Mach, Elec, Prec	\$10.48	Farm Equipment Mechanic	\$12.43
Automotive Body, Related Repairer	\$15.36	Farm Equipment Operator	\$10.65
Automotive Mechanic	\$11.45	Financial Manager	\$21.97
Baker, Bread & Pastry	\$8.72	Fire Fighter	\$17.83
Bank Teller	\$8.36	First Line Supervisor, Agr, Forest, Fish	\$14.43
Bartender	\$6.78	First Line Supervisor, Clerical	\$13.59
Bill, Post & Calculate Machine Oper	\$11.18	First Line Supervisor, Constr & Extract	\$21.94
Billing, Cost & Rate Clerk	\$10.51	First Line Supervisor, Helpers, Laborer	\$12.20
Biologic, Agri, Food Tech, exc Health	\$14.13	First Line Supervisor, Mechanic & Repair	\$17.70
Bookkeeping, Accounting & Auditing Clerk	\$9.94	First Line Supervisor, Production	\$17.70
Broker, Real Estate	\$26.62	First Line Supervisor, Froduction First Line Supervisor, Sales & Related	\$12.49
Bus & Truck Mechanic & Diesel Specialist	\$16.81	First Line Supervisor, Transportation	\$14.94
Bus Driver, School	\$11.66	First-Line Supervisor, Mgr, All Other	\$18.58
	\$7.36	Food Preparation Worker	\$16.56 \$7.68
Camery Worker	\$7.30 \$15.14		
Carpet Installer	\$15.14 \$16.61	Food Service & Lodging Manager Foundry Mold Assembly & Shake-out Wrkr	\$11.41
Cashier			\$9.30 \$7.15
Casher Child Care Worker	\$6.96 \$7.43	Gardener & Groundskeeper, except Farm	\$7.15
	\$7.43 \$5.05	General Farm Worker	\$5.64
Child Care Worker, Private Household		General Manager & Top Executive	\$21.15
Civil Engineer, including Traffic	\$23.32	General Office Clerk	\$9.25
Clean, Wash, Pickle Equipment Op/Tend	\$10.95	Grader & Sorter, Agricultural Product	\$6.96
Cleaner & Servant, Private Household	\$5.50	Grader, Bulldozer & Scraper Operator	\$17.41
Clergy	\$16.05	Guard & Watch Guard	\$7.67
Combined Food Preparation & Service	\$6.05	Hairdresser & Cosmetologist	\$8.06
Communication, Transport, Utilities Mgr	\$20.22	Hand Packer & Packager	\$7.33
Comply Officer & Inspector, exc Const	\$14.79	Heat, A/C, Refrigeration Mech & Install	\$14.54
Computer System Analyst, EDP	\$20.52	Helper, Carpenter & Related Worker	\$12.45
Concrete & Terrazzo Finisher	\$16.26	Helper, Mechanic & Repairer	\$10.44
Construction Manager	\$18.52	Highway Maintenance Worker	\$15.66
Conveyor Operator & Tender	\$9.22	Home Health Aide	\$8.27
Cook, Fast Food	\$6.07	Hotel Desk Clerk	\$6.50
Cook, Institution or Cafeteria	\$8.49	Housekeeping Supervisor, Institutional	\$7.83
Cook, Restaurant	\$8.44	Human Service Worker	\$9.86
Cook, Short Order	\$8.03	Industrial Machinery Mechanics	\$12.85
Counter & Rental Clerk	\$6.64	Industrial Production Manager	\$24.77
Counter Attendant, Lunchroom, Cafeteria	\$6.71	Industrial Truck & Tractor Operator	\$11.26
Customer Service Represent, Utilities	\$15.38	Instructor & Coach, Sport	\$12.06
Dental Assistant	\$13.04	Instructor, Nonvocational Education	\$16.29
Designer, except Interior Design	\$16.23	Insurance Policy Processing Clerk	\$13.44
Dining Room, Cafeteria & Bartender Help	\$5.94	Insurance Sales Worker	\$18.69
Drafter	\$19.89	Janitor & Cleaner, except Maid	\$8.68
Driver/Sales Worker	\$13.90	Laund, Dry-clean Mach Op/Tend, exc Pres	\$7.44
Drywall Installer	\$21.87	Lawyer	\$33.04
Education Administrator	\$27.43	Legal Secretary	\$14.80

Figure 52 (Continued)
Occupational Wages
Adams and Grant Counties, 1996
Source: Employment Security Department

	Hourly		Hourly
Title	Mean Wage	Title	Mean Wage
Licensed Practical Nurse	\$10.91	Refuse & Recyclable Collector	\$12.01
Loan Officer & Counselor	\$16.52	Registered Nurse	\$17.44
Machine Feeder & Offbearer	\$8.72	Reporter & Correspondent	\$13.62
Machinery Maint Mechanic, Water/Power	\$20.02	Roofer	\$14.65
Machinist	\$14.51	Sales Agent, Advertising	\$15.11
Maid & Housekeeping Cleaner	\$7.24	Sales Rep, exc Retail, Sci, Related	\$11.72
Maintenance Repairer, General Utility	\$10.93	Sales Rep, Science & Related, exc Retail	\$22.76
Marketing, Advertising, Public Rel Mgr	\$24.61	Salesperson, Parts	\$10.82
Medical Assistant	\$10.43	Salesperson, Retail	\$7.51
Medical Secretary	\$7.99	Secretary, except Legal & Medical	\$10.96
Medicine & Health Service Manager	\$16.36	Sheet Metal Worker	\$18.71
Mobile Heavy Eq Mechanic, exc Engine	\$15.34	Sheriff & Deputy Sheriff	\$23.35
Nursery & Greenhouse Manager	\$11.74	Social Work, exc Medical & Psychiatric	\$15.44
Nursery Worker	\$7.15	Social Work, Medical & Psychiatric	\$16.58
Nursing Aide, Orderly & Attendant	\$8.60	Stock Clerk, Sales Floor	\$8.23
Operating Engineer	\$19.28	Stock Clerk, Stockroom or Warehouse	\$9.54
Optician, Dispensing & Measuring	\$11.99	Surveying & Mapping Technician	\$14.79
Packaging & Filling Machine Op/Tend	\$9.65	Switchboard Operator	\$10.63
Painter & Paperhanger, Constr & Maint	\$12.14	Teacher Aide & Educational Asst, Clerk	\$8.13
Paving, Surfacing, Tamping Equip Opr	\$17.09	Teacher Aide, Paraprofessional	\$9.40
Payroll & Timekeeping Clerk	\$13.54	Teacher, Elementary	\$21.39
Personal Home Care Aide	\$8.49	Teacher, Kindergarten	\$20.07
Personnel, Train & Labor Relation Mgr	\$18.34	Teacher, Preschool & Kindergarten	\$17.22
Personnel, Train & Labor Relation Spec	\$15.66	Teacher, Secondary School	\$22.41
Pharmacist	\$29.65	Teacher, Special Education	\$23.09
Pharmacy Technician	\$9.85	Teacher, Vocational Education	\$20.10
Photographer	\$12.91	Telephone & Cable TV Line Install/Repair	\$15.70
Physician & Surgeon	\$46.46	Tire Repairer & Changer	\$9.14
Plumber, Pipefitter, Steamfitter	\$21.21	Traffic, Shipping & Receiving Clerk	\$9.48
Police Patrol Officer	\$20.11	Truck Driver, Heavy or Tractor-Trailer	\$12.54
Postal Mail Carrier	\$13.33	Truck Driver, Light, incl Delivery & Rel	\$13.83
Power-Gen Plant, except Aux Eq, Op	\$18.74	Typist, including Word Processing	\$6.74
Production Inspector, Grade, Sort,Test	\$11.30	Vehicle Washer & Equipment Cleaner	\$9.26
Property & Real Estate Manager	\$14.95	Vocational & Educational, Counselor	\$18.23
Pruner	\$11.00	Waiter & Waitress	\$5.64
Psychiatric Technician	\$9.72	Water, Liquid Waste Treat Plant, Sys Op	\$16.52
Psychologist	\$21.68	Welder & Cutter	\$13.35
Public Admin, Chief Exec & Legislator	\$12.42	Welfare Eligibility Worker, Interviewer	\$16.70
Purchasing Manager	\$10.29	Wholesale, Retail Buyer, except Farm	\$14.31
		Writer & Editor	\$21.13
Receptionist, Information Clerk	\$7.83		

INCOME

This section deals with income rather than wages, which were discussed earlier and which are only one aspect of income. Data in this section are derived from the U.S. Department of Commerce, Bureau of Economic Analysis. All income data have been adjusted to 1996 dollars.

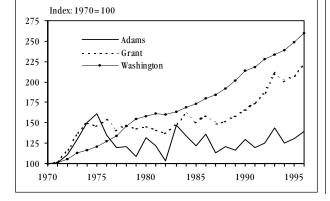
Total and Per Capita Personal Income

Personal income is an important indicator of a region's economic vitality. Conceptually, personal income captures all types of income. Wages, salaries, government transfer payments, retirement income, farm income, self-employed income, proprietors' income, interest, dividends, and rent are all included in this measure. Because business and corporate incomes are not included, it is considered personal income. *Figure 53* shows the growth rate of total personal income since 1970 for both counties and the state.

The various types of income are categorized as earned income, transfer payments, and investment income. *Figures 54 and 55* show the changes in these components (indexed to 1970=100) since 1970. In both counties, transfer payments have grown the most. Earned income is the largest of the three but has grown the least in both counties. The components will be discussed in more detail below.

Dividing the total personal income of an area by the population yields personal per capita income. Per capita income is a useful measurement; it gives a common denominator between income (growth or decline)

Figure 53
Personal Income
Adams, Grant, & Washington, 1970-1996
Source: Bureau of Economic Analysis



and population (growth or decline) so that comparisons can be made between different areas or time periods with unlike populations and incomes. *Figure 56* shows per capita income for the counties and Washington since 1970.

Figure 54
Changes in Personal Income Components
Adams County, 1970-1996
Source: Bureau of Economic Analysis

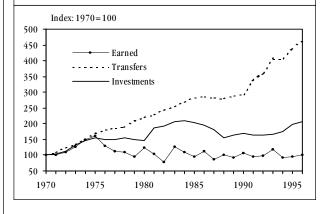


Figure 55
Changes in Personal Income Components
Grant County, 1970-1996
Source: Bureau of Economic Analysis

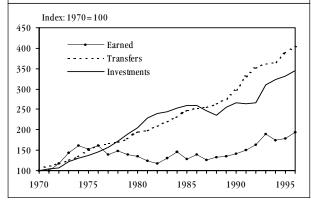
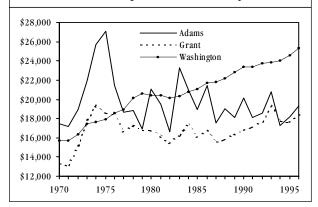


Figure 56
Per Capita Income
Adams, Grant, & Washington, 1970-1996
Source: Bureau of Economic Analysis



Adams County. In Adams County, growth of total personal income was a minimal 40 percent since 1970, rising from \$212 million to \$297 million in 1996. While the percentage increase is far removed from the statewide gain of about 160 percent, there was little population increase in the county and per capita income, within fluctuations, remained roughly the same over time. In fact, Adams County per capita income is normally greater than in Grant County and occasionally greater than in Washington, even though it does tend to wildly fluctuate. In 1996, the county's per capita income was \$19,275, three-fourths of the statewide income of \$25,277 and ranked 23rd among Washington's 39 counties.

Median household income—the point where half of all household incomes are higher and half are lower—was estimated at \$30,979 in 1998. Statewide median income was \$44.134.

The factor causing the volatile changes in the county's personal income is the significant portion of all income that stems from the farm. Farm income can and does fluctuate dramatically from year to year, depending upon how well the crops do and the market price for commodities. Farm income has been at least 10 percent of total income in Adams County since 1970 and in the early 1970s it reached 48 percent. Statewide, the share seldom goes above 2 percent: in 1996 it was 1.2 percent. The changes in the county's farm income can be breathtaking. In 1975, it was \$165 million and 48 percent of total income. Four years later in 1979, it was \$40 million and 17 percent of personal income.

The peaks and valleys of the charts showing income over time in Adams County all stem from the variations in farm income. Nonfarm income is relatively stable and does not fluctuate much from year to year. *Figure 57*

Figure 57
Farm and Nonfarm Income
Adams County, 1970-1996
Source: Bureau of Economic Analysis

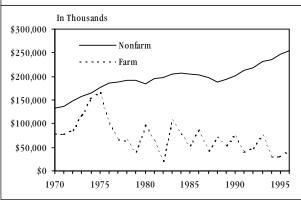
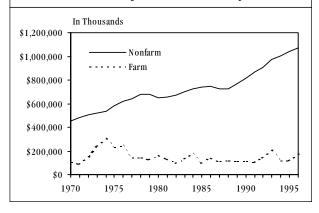


Figure 58
Farm and Nonfarm Income
Grant County, 1970-1996
Source: Bureau of Economic Analysis



shows the two income streams since 1970: note that farm income has been declining and nonfarm income has been on the increase, especially since 1988.

Grant County. Personal income in Grant County rose 122 percent since 1970, fairly close to the statewide increase of 160 percent. The increase was from \$561 million to \$1,243 million. This growth, *per se*, was greater in Grant County than in Adams. However, population growth in Grant was also greater, so that there was no corresponding growth in per capita income. Per capita income has increased, though, especially after 1987. Prior to that it had been on the downswing since the early 1970s. Per capita income was \$18,366 in 1996, about 73 percent of the statewide figure of \$25,277. Grant County's income ranked 30th in the state.

In Grant County, the median household income was estimated to be \$30,377 in 1998, about 69 percent of the statewide figure of \$44,134.

Farm income is a very important portion of personal income in Grant County. In 1996, it amounted to \$173 million, or about 14 percent of the total. In the bumper year of 1974, it came to over \$300 million and accounted for 36 percent of personal income. *Figure 58* on the previous page shows farm and nonfarm income for the county since 1970 and shows that since the late 1970s farm income, with some fluctuations, has been essentially flat while nonfarm income has been growing fairly consistently.

In general, personal income in the county has enjoyed good growth while the population has enjoyed even greater growth. A take-off in nonfarm activity, mainly manufacturing, in the mid- to late-1980s, though, pushed income up even higher, resulting in an increasing per capita income. Because this increase is not related to the volatility of the farm, it is more likely to be sustainable.

Earned Income

Earned income includes wages and salaries, proprietors' income, and what is called "other labor income." Other labor income subsumes an assortment of incomes but primarily consists of employer payments into employee pension and health care plans.

Over the past two decades, the share of income from the different sources has changed substantially throughout the nation. Nationally, earned income has dropped from 75 percent of income in 1970 to 67 percent in 1996. In Washington, the decline was from 75 to 67 percent. The drop has been greater in both Adams and Grant counties. *Figure 59* shows the growth of earned income indexed to 1970=100 for both counties and the state.

Adams County. Earned income in Adams County changed only by 2 percent from 1970 to 1996, rising from \$180 million to \$185 million in real dollars. (There were, of course, larger changes than that during the course of the 26 years.) While there was not an overall loss, the growth of the other components caused the shrinkage of the share size of earned income. In 1970, that \$180 million amounted to 80 percent of personal income: in 1996, the \$185 million amounted to 59 percent of the total. Clearly, growth has been concentrated in other areas and a significant shift in the sources of income is occurring.

Within earned income, there are large differences in the changes in the dollar amounts of the various components. *Figure 60* indexes these components to 1970=100 to show their growth rates since 1970. With "other labor income," the trend has been a very large increase—this component rose 269 percent. Employers, and employees, often prefer increases in these benefits rather than directly in wages and salaries because of tax benefits. However, this income only constitutes a small part of earnings: \$37 million, or 7 percent of all earnings, in 1996.



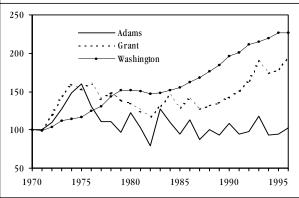
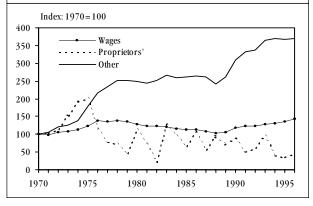


Figure 60
Changes in Earned Income Components
Adams County, 1970-1996
Source: Bureau of Economic Analysis



Proprietors' income, much of which is farm related, actually decreased by 55 percent since 1970, going from \$82 million to \$37 million. Decreases in this income have been the main cause behind the minimal growth and share size shrinkage of total earnings. Proprietors'

income is strongly correlated with farm income and rises and falls in accordance with farm markets and conditions. Compare the growth rate of proprietors' income with that of farm income (shown earlier), and the relationship between the two becomes obvious.

Wages and salaries make up the bulk of earnings, almost three-fourths, but have grown only by about 42 percent since 1970. Much of that growth has been since 1979. In 1996, this component of earnings amounted to \$135 million.

Grant County. Earned income has shown appreciable gains since 1970, growing by 94 percent. While the growth is less than the statewide 127 percent increase, the gains are remarkable considering that the statewide gains are driven by the high tech and aerospace firms of highly industrialized Puget Sound. Even though these gains did represent a significant increase in the dollar amounts (from \$425 million to \$825 million), the share size of earned income fell 76 percent in 1970 to 63 percent in 1996. Other income sources were growing much more rapidly than earnings.

Figure 61 shows the growth rate of the three components of earnings in Grant County since 1970. Other labor income grew by an amazing 470 percent. But this type income is a relatively small part of earnings, amounting to only \$60 million, or 7 percent of all earned income. Its strong growth, especially since the late 1980s, has been buttressed by more and more nonfarm type businesses taking root in the county and paying into health care and pension plans.

Proprietors' income increased by only 36 percent since 1970, but it has a tendency to yaw strongly, as the

Figure 61 Changes in Earned Income Components Grant County, 1970-1996 Source: Bureau of Economic Analysis

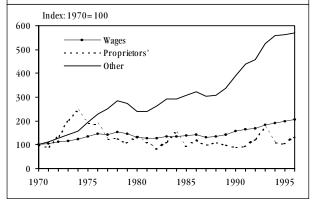


chart shows, and any one year can be dramatically different from another. In 1974, a boom year, this income reached \$316 million; three years earlier it was \$114 million. In 1996 the figure was \$175 million; a year earlier, \$134 million. The changes stem mainly from sharp variations in farm production and market prices: a large number of proprietorships in the county are farms. Proprietors' income constitutes about 20 percent of all earnings.

Wages and salaries make up 73 percent of earned income. This income stream grew steadily from 1970 to 1978, declined for a couple of years, and then picked up again. All told, it increased by 107 percent since 1970: considerably more than proprietors' income but less than other labor income. In 1996, wages and salaries totaled \$590 million, up from \$569 million the year before.

Transfer Payments

A transfer payment is generally seen as a payment by the government to someone from whom no direct service is rendered. Transfer payments are second in size after earnings in the composition of personal income, and have grown tremendously over the last three decades. Transfer payments are garnering an ever larger share of personal income, and while there is no danger they will surpass earnings in size, they represent an increasingly important source of income. Nationally, transfer payments increased their share of personal income from 10 percent to 16 percent from 1970 to 1996. The increase in the two counties has been much greater.

Nationally, the largest portion of transfer payments (89 percent) is made up of public sector retirement and related payments. These include social security payments, federal government civilian and military retirement pay, and state and local government retirement pay (private sector retirement payments are calculated indirectly through the earnings of pension and insurance funds, and are included as part of dividends, interest and rent). Medical payments, such as Medicare, are also included here and are a significant portion of retirement related transfers. The category called income maintenance includes Aid to Families with Dependent Children, general assistance, food stamps, and other transfers generally thought of as welfare. Nationally, it accounts for about

9 percent of transfer payments. Unemployment insurance benefits are the third segment of transfer payments and in 1996 accounted for 2 percent of the nation's transfer payments.

Growth rates for transfer payments in Washington and the two counties are shown in *Figure 62* where the dollar amounts are indexed to 1970=100. Growth has been very strong since 1970. Transfers' portion of total income has increased from 6 to 21 percent in Adams County (a 363 percent dollar increase); from 12 to 20 percent in Grant County (a 304 percent increase); and from 11 to 15 percent in Washington as a whole (a 244 percent increase).

Adams County. In 1996, Adams County received \$67 million in transfer payments. Eighty percent of this amount was retirement-related; 13 percent was income maintenance; and 8 percent was unemployment insurance benefit payments. These figures represent growth of over 500 percent for income maintenance and UI benefits, and 334 percent for retirement-related transfers. These are extremely substantial increases, especially when, as mentioned earlier, one considers that earned income increased by 2 percent over the same period.

Retirement payments have been increasing fairly steadily throughout the period shown (*see Figure 63*) while UI benefits and income maintenance payments undergo strong alternations as the economy contracts or expands. UI benefits, for example, dropped from \$7.8 million in 1993 to \$5 million in 1996. Income maintenance is more stable than UI payments but still climbed sharply during most of the 1990s, falling off only in 1996.

Grant County. Retirement and related payments have grown more strongly than UI benefits or income maintenance payments. *Figure 64* indexes these payments to 1970=100 for comparison purposes. Retirement payments grew by 237 percent, going from \$51 million in 1970 to \$221 million in 1996. Income maintenance grew \$8.6 to \$25.4 million, a 194 percent increase. UI benefits fluctuated widely but had an overall increase of 195 percent, rising from \$6.4 to \$18.9 million.

Retirement related payments, including Medicare, make up 83 percent of transfer payments in the county. Income maintenance comprised 10 percent and UI payments, 7 percent. The effects of welfare reform haven't shown up, yet, in the data, but income maintenance could drop to an even lower level than its current 10 percent of total transfers.

For both counties, transfer payments have become an increasingly important source of income which, to a degree, make up for stagnant or slow growth in earnings.

Figure 62
Transfer Payments
Adams, Grant, & Washington, 1970-1996
Source: Bureau of Economic Analysis

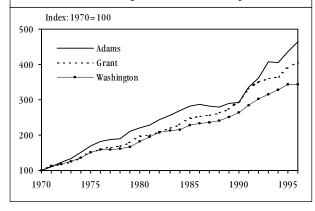


Figure 63
Changes in Transfer Payments Components
Adams County, 1970-1996
Source: Bureau of Economic Analysis

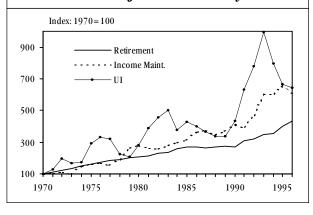
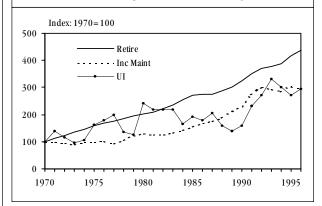


Figure 64
Changes in Transfer Payments Components
Grant County, 1970-1996
Source: Bureau of Economic Analysis



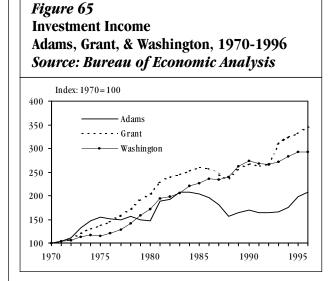
Dividends, Interest, and Rent

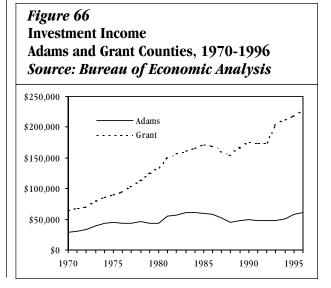
These types of income (collectively called investment income) are the prime examples of making money with money. Money which has been used to purchase stocks, bonds, or which resides in bank accounts, or has been loaned, or which was used to purchase rental properties, can return a profit. Most private pension plans are included here, as opposed to social security or military retirement payments, which are considered transfer payments.

Investment income is heavily concentrated. Nationally, the top ten percent of families own half of all liquid assets (checking accounts, savings accounts, CDs, IRAs, etc.), 70 percent of all stocks and bonds, and half of all property. Age is also a factor: those 55 and older own two-thirds of the nation's liquid and financial assets.

Figure 65 shows investment income indexed to 1970=100 and Figure 66 shows the actual dollar amounts. Investment income grew by over 100 percent in Adams County, increasing from \$29 million in 1970 to \$61 million in 1996, when it represented 19 percent of total personal income in the county. As can be seen, there was strong growth in the early-1980s followed by an almost as dramatic drop in the mid-1980s. Since the late 1980s, the amount has been increasing moderately.

Grant County's investment income grew strongly and relatively smoothly from 1970 through the mid-1980s. Decline and stagnation ended in 1992 and growth has been strong since. In dollars, it increased from \$66 million in 1970 to \$227 million in 1996; a 246 percent increase that in 1996 represented 20 percent of personal income.





JOB TRAINING AND ECONOMIC DEVELOPMENT

Job Training

The *Job Training Partnership Act (JTPA)* of 1982 established programs to prepare youth and unskilled adults for entry into the labor force. Of special note is the emphasis placed on economically disadvantaged individuals and others who face serious barriers to employment. It is upon this legislation that the Employment Security Department and other providers base their job service programs.

Private Industry Council. Washington is divided into areas that provide services related to employment. These regions, called Service Delivery Areas, are often administered by Private Industry Councils. For Adams and Grant counties, the administrator for job services is the Pentad Corporation Private Industry Council, Inc. (PIC). A nonprofit corporation, the PIC has jurisdiction over JTPA grants via the state Employment Security Department. These grants are used to train and place local unskilled or unemployed workers. Training offered include the following:

- Adult Basic Education (GED)
- English as a Second Language (ESL)
- Occupational /Vocational Training
- Automated Office Skills
- On-the-Job Training
- Youth Internships/Work Experience and Transitional Program
- Ex-Offender Program
- Work Orientation Program
- Dislocated Worker Retraining Program

The PIC has jurisdiction over JTPA Service Delivery Area VIII, which includes Adams and Grant as well as Chelan, Douglas, and Okanogan counties. Administrative responsibilities (e.g., record keeping, data collection, program planning, employer contact, etc.) and executive oversights are handled by the council.

Job Service Center. Operated by the Employment Security Department, the Moses Lake Job Service Center (JSC) provides job services to residents of Adams and Grant counties. The JSC is a full-service office; that is, it provides the full range of services offered by any JSC in the state. In addition to providing *Unemployment Insurance*, the JSC administers several other programs.

WorkFirst is administered in cooperation with the Department of Social and Health Services. It seeks to make those on public assistance self-sufficient through employment. Services include job planning and counseling, case management, childcare assistance, educational and vocational training, and job placement.

Worker Profiling targets recent unemployment insurance applicants for job placement services to speed their return to work. This shortens the duration of unemployment for the individual and saves costs to the unemployment insurance trust fund.

The *Trade Adjustment Act (TAA)* is another JSC administered program. This one is designed to assist those who have been displaced because of the impact of foreign imports on their industries. While the amount of benefits and compensation periods vary, the program offers services only after the U.S. Department of Labor certifies that the individual has indeed been dislocated as a result of such impacts on his or her industry.

The JSC runs the *Migrant and Seasonal Farm Workers (MSFW)* program, which provides assistance to agricultural workers. Veterans programs are also operated out of the JSC. Staffed and developed by veterans, the *Local Veterans Employment Representative Program* and the *Disabled Veterans Outreach Program* provide counseling, career search skills, and job placement assistance to veterans.

Economic Development

Adams County. "To support the development of economic stability, promote the general welfare and quality of life in Adams County and the surrounding region," is the mission statement of the Adams County Economic Development Council (EDC). Located in Othello, the EDC is a private, nonprofit corporation with both public and private sector members. A primary emphasis of the Council is to promote local industry by seeking ways to add dollar value to local products prior to shipment. Through these type efforts, the EDC hopes to provide an atmosphere of sustainable growth that will meld with the established culture of the region.

Other economic development organizations in Adams County include the Othello, Lind, and Ritzville Chambers of Commerce. The Chambers of Commerce are composed of business owners and other interested individuals who work together to further the business interests of their communities.

Grant County. The mission of the Grant County Economic Development Council (GCEDC) is "To work for the continued, orderly growth of the Grant County economy through coordinated marketing and planning activities while maintaining a favorable quality of life for local residents." GCEDC is a private nonprofit corporation funded with membership dollars from the private and public sectors. GCEDC works closely with existing industries to assist with business retention and expansion issues and activities. GCEDC also interacts with the local port districts and communities to facilitate solutions for issues impacting industrial activity and to secure new industrial projects for our area.

Most of the chambers, cities and the port districts of Grant County participate in economic development efforts in Grant County. Moses Lake, Ephrata, and Grand Coulee have active community economic development task forces.

Educational Facilities. Big Bend Community College is located four miles north of Moses Lake adjacent to Grant County International Airport. This state-supported comprehensive community college serves a 4,600-square-mile service district, including all of Adams and Grant counties and the Odessa School District in Lincoln County.

Founded in 1962, Big Bend offers a wide selection of academic transfer, technical/professional, developmental, and community education programs. Classes are offered on campus both days and evenings, and in a dozen

communities in the college's service district. Programs include 21 occupational and 28 academic transfer programs, and the school is nationally known for its commercial pilot program. Offices and classes of Central Washington University, Embry-Riddle Aeronautical University, and Heritage College are located on BBCC's campus, bringing bachelor's degree opportunities to the area. The college also has an on-site Job Service Center where employers can place job orders.

Big Bend has separate training facilities for two-year programs in automotive technology, aviation (flight), aviation maintenance technology, drafting/civil engineering technology, commercial driver's license, forklift operation, industrial electricity, maintenance mechanics, nursing, office information technology, and welding. Two-year applied science degrees are also offered in accounting, computer science, business management, chemical laboratory technology, and child and family education.

Also on campus is the *Business Development Center*. Available to local businesses at the BDC are services that include free individual business advising, business start-up information, customized training, supervisory certification, and seminars for business challenges in the local area. The BDC designs customized training programs for employers in areas such as basic skills, computer literacy, supervision, employment law, etc. In cooperation with Washington State University, the Center coordinates a wide range of different resources to meet the needs of business managers and owners.

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In addition to the community college, there are six major institutions in eastern Washington not far from the area: Central Washington University (Ellensburg); Eastern Washington University (Cheney); Washington State University (Pullman); Whitman College (Walla Walla); Whitworth College (Spokane) and Gonzaga University (Spokane).

Infrastructure. An area's infrastructure is an integral part of economic development. The following are primary infrastructural elements currently in place in Adams and Grant counties.

Roads and Highways. The major thoroughfare through Grant County is Interstate Route 90. Running

west and east, I-90 is connected to the rest of Grant County through an extensive network of state routes (17, 24, 26, 28, 155, 170, 171, 243, 281, 282, and 283). From Grant County, I-90 enters Adams County from the west and heads east toward Ritzville before heading northeast to Spokane. From Ritzville, travelers can take US Route 395 southwest to the Tri-Cities and into Oregon. State Routes, 21 and 261, which run north and south, and State Route 26, which runs east and west, also access Adams County.

Air Transportation. Located in Moses Lake, Grant County International Airport (13,500 feet) is the largest airport that serves both Adams and Grant counties. It offers passenger service through Horizon Air and cargo service through a number of mail and cargo carriers. (It also serves as a heavy jet training facility for Japan Airlines; 350 visual flight days a year and the lengthy runway—the second longest west of the Mississippi River—make it an ideal site.) There are six other public airports throughout both counties. They include:

- Lind Municipal (4,100-foot runway of which 3,200 feet are paved)
- Pru Field (4,700-foot runway in Ritzville)
- Othello Municipal (4,100-foot runway—perhaps the largest general service airport in the state)
- Ephrata Municipal (7,300-foot runway)
- Quincy Municipal (3,200-foot runway)
- Warden Municipal (2,500-foot runway)

There are also seven private airfields located in Adams County; Washtucna has three, Ritzville one, Lind one, and Othello has two.

Rail Service. Three railroads operate in Adams and Grant counties. The first, Burlington Northern & Santa Fe, hauls all types of commodities although the bulk of their freight is agricultural produce and products. The second railroad, operated by Amtrak, provides passenger service to Seattle and Spokane. The third, Columbia Basin Railroad, serves the Moses Lake area and connects to the Burlington Northern Railway main line at Connell.

SUMMARY

Historically, Adams and Grant counties have been agriculturally dominated areas. Located in the very productive farmland of the Columbia Basin, the economies of Adams and Grant counties have been, are, and will be extensively intertwined with agriculture. Not only is the land extremely fertile, it is enhanced by a vast irrigation network whose source is the Columbia River. Agricultural production is diverse. There are a large number of orchards as well as field crops; produce ranges from apples and cherries to wheat and potatoes as well as many other vegetables.

Agriculture is the largest employer in the region. Of the two-county region's 35,760 covered workers, one-fourth are farm workers (1997). In addition to this, agriculture is the force behind several other industries including food processing, trucking and warehousing, and much of wholesale trade. Taken together, these industries employ over 40 percent of the area's workers. It is difficult to overestimate the impact of farming on the area.

The area has an excellent infrastructure for the farming community, as well as for other industries. Aside from the irrigation system, there is an extensive network of state highways as well as Interstate 90 which cuts through the counties. There are numerous train spurs, and Amtrak passenger service. There are several air fields, both public and private, and the Grant County International Airport (formerly Larsen Air Force Base) can handle any size aircraft and provides passenger and cargo service.

There has been strong diversification in manufacturing, particularly in Grant County, where a number of firms have located. Employment growth has been rapid in these industries (metal fabrication, instruments, computer-chip components, navigational equipment, etc.) and has increased at a faster rate than it has in food processing, the area's largest manufacturing industry. In addition to the well developed infrastructure, cheap electricity is abundant.

Trade and service industries have shown good growth and provide large numbers of jobs in the counties. The government sector is the second largest in both counties (if retail and wholesale trade are separated) and provides an element of stability and relatively high-paying jobs.

The dominance of agriculture does cause some concerns, though. Unemployment remains considerably higher in both counties than it is throughout the state. In 1998, the annual rate in Adams County was 10.7 percent; in Grant County it was 9.2 percent. Throughout the state, where the economy is more diversified, the rate was 4.8 percent. A further problem is that of the seasonality of farm work; there can be very wide increases or decreases in unemployment from month to month depending upon what crop activity is occurring.

Income and earnings are also a problem. Because farm work occupies so much of the labor force, and because farm work is relatively low-wage work, the county income indicators are low. In both Adams and Grant counties, per capita income, the annual average wage, and median household income are all considerably less than the statewide averages. (The statewide averages, though, are strongly influenced by the high tech, high-wage industries of the Puget Sound region.) Further diversification and growth of area manufacturing industries, which are normally higher paid than other sectors, should result in increases in income and earnings.

Overall, though, the economies are doing well. Even though there are problems associated with agriculture, it does provide a tremendous number of jobs and is the bedrock source of the area's wealth. The expansion and creation of international markets should, in the long run, serve the local farm community well. Growth in manufacturing other than food processing is increasing, especially in the Moses Lake area. The region has a number of advantages not found elsewhere and firms weary of big-city congestion, prices, crime, etc., are often relocating to sites like this. Relatively cheap land, low-cost electricity, and easy access to major transportation routes increase the attractiveness of Adams and Grant counties. The area has a solid foundation upon which to build.